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RANDOM RECORDS OF A LIFETIME,
DEVOTED TO SCIENCE AND ART 1846-1931

BY W. ^{William Henry}H. HOLMES
'''

VOLUME VII

1892-1897

SECTION I. The World's Columbian Exposition,
Chicago, 1892-94.

Non-Resident Professor of Anthropic and
Graphic Geology, University of Chicago,
1892-97.

Head Curator, Department of Anthropology,
Field Columbian Museum, Chicago, 1894-97.

SECTION II. The Armour Expedition to Yucatan, 1894-95.

Return to Chicago and the Field Museum, 1895.

Reviews of my book on the Antiquities
of Yucatan.

SECTION III. Resignation of Curatorship in the Field
Columbian Museum and return to Washington
as Head Curator of Anthropology, National
Museum, 1897.

VOLUME VII

SECTION I. The World's Columbian Exposition,
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and Graphic Geology, University of
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INTRODUCTORY

The contents of this volume are hardly more than fragments of the story of my farewell to Washington, my work on the Chicago Exposition, my slight connection with the University of Chicago and my Curatorship in the Field Museum of Natural History. The work in the University and in the Museum was broken into by the expedition to Yucatan. The preparation of my report on this fascinating exploration was very absorbing. An adequate idea of my work in the ruined cities of Yucatan can be had only by reference to my published report, in two parts, and unfortunately confined to an edition of 1000 copies.

SMITHSONIAN INSTITUTION

BUREAU OF ETHNOLOGY

WASHINGTON, D. C. April 30th, 1892.

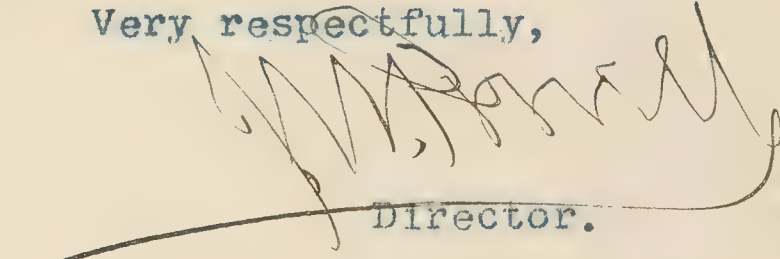
Mr. W. H. Holmes,

Bureau of Ethnology.

Sir:

You are hereby detailed for work in connection with the Bureau exhibit at the World's Columbian Exposition at Chicago and will report for duty to Mr. G. Brown Goode or his representative.

Very respectfully,



Director.

*John W. Powell died in 1902 and I
was appointed his successor,
W. H. H.*

THE CHICAGO EXPOSITION

The year 1893 was fully of interest and work for me. Aside from the normal activities connected with the Bureau of Ethnology and the varied field work connected therewith, I was called upon to take an active part in the preparation of exhibits for the Chicago Exposition. The exhibit, prepared for the Smithsonian, and its Departments, was extensive and its preparation in Washington and installation in Chicago occupied much of my time during the years 1893-94. My appointment as Honorary Judge in the Department of Ethnology, Worlds' Columbian Exposition, signed by John Boyd Thatcher, is included here.

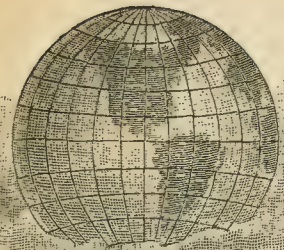
While in Chicago in July, Major Powell, Director of the Bureau, paid a visit to the Exposition, and this interesting episode is recorded in a letter to my home folks, a copy of which follows.

BUREAU OF AMERICAN ETHNOLOGY
15th Annual Report, 1893-94.

WORLD'S COLUMBIAN EXPOSITION.

"The preparation of the exhibit of the Bureau at the World's Columbian Exposition in Chicago was assigned to Professor William H. Holmes, who supervised the collection of material and its arrangement in the National Museum preparatory to shipment. He was assisted in the work by Mr. Frank Hamilton Cushing and Mr. James Mooney, and it is a pleasure to acknowledge the facilities provided and the aid rendered by the officers of the National Museum, especially Dr. G. Brown Goode and Dr. Otis T. Mason. The exhibit was installed in the Government building at Chicago by Professor Holmes, aided by Mr. Cushing, largely under the supervision of the Director. Mrs. Matilda Cox Stevens also aided in this work. On completing the installation Mr. Holmes returned to Washington, leaving to Mr. Cushing the final arrangement of a number of lay figures, which constituted one of the most striking features of the exhibit."

(Page XCI)



BUREAU:
ADMINISTRATION BUILDING,
Jackson Park,
CHICAGO, ILL.

World's Columbian Commission

EXECUTIVE COMMITTEE ON AWARDS.

JOHN BOYD THACHER, Chairman, Albany, N. Y.
W. J. SEWELL, New Jersey. A. T. BRITTON, District Columbia.
A. B. ANDREWS, North Carolina.
B. B. SMALLEY, Ex-Officio Member, Burlington, Vt.

November 7, 1893.

Dr. W. H. Holmes,
United States Geo. Survey,
Washington, D. C.

Dear Sir:-

Please find enclosed the judges' badge which I promised
to send you.

Yours,

m. A. Parks.

Chairman Executive Committee on Awards.

THE UNIVERSITY OF CHICAGO

FOUNDED 1890 JOHN D. ROCKEFELLER

WILLIAM R. HARPER, President

CHICAGO January 27, 1894.

R. D. SALISBURY
Professor of Geographic Geology
J. P. IDDINGS
Associate Professor of Petrology
R. A. F. PENROSE, JR.
Associate Professor of Economic Geology
C. R. VAN HISE
Associate Professor of Pre-Cambrian Geology
C. D. WALCOTT
Non-resident Professor of Paleontologic Geology
W. H. HOLMES
Non-resident Professor of Archeologic Geology

Personal.

Professor W. H. Holmes,

Bureau of Ethnology.

My dear Professor Holmes:-

Mr. Skiff leaves here this evening

111

R. D. SALISBURY
Professor of Geographic Geology
J. P. IDDINGS
Associate Professor of Petrology
R. A. F. PENROSE, JR.
Associate Professor of Economic Geology
C. R. VAN HISE
Non-resident Professor of Pre-Cambrian Geology
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Non-resident Professor of Paleontologic Geology
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Non-resident Professor of Archeologic Geology

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Founded by JOHN D. ROCKEFELLER

WILLIAM R. HARPER, President

CHICAGO January 27, 1894.

Personal.

Professor W. H. Holmes,

Bureau of Ethnology.

My dear Professor Holmes:-

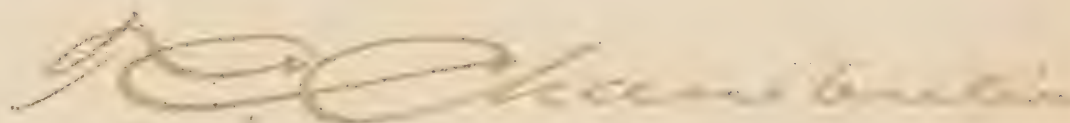
Mr. Skiff leaves here this evening for Washington and will call upon you early next week prepared to talk with you quite definitely regarding Museum matters. I have endeavored to get matters into the best shape possible for you, and I think you will feel that I have been reasonably successful. I may say to you that the matter takes shape now almost wholly through my influence, as Mr. Skiff will perhaps explain to you. Owing to the delicate relations of the Museum to Professor Putnam and Dr. Boaz, the proposed arrangement with you will be best kept confidential for a time, as Mr. Skiff will doubtless explain to you. I think you may feel at liberty to reserve the right to lecture at the University of Chicago. This seems to be tacitly understood, and perhaps you can also have it understood that you will be permitted to do some Bureau and artistic work. I shall try to reserve a sum from our salary allotment sufficient to compensate you for such a course of lectures as you may think it de-

sirable to give at the University next year. we want you on our staff, and we want your good influence in our scientific atmosphere. So also we want to help extend your influence as far as we can. Mr. Skiff will also call upon Mr. Walcott with a proposition, and I trust you will use your ~~your~~ influence to secure a favorable decision from him, if any influence is necessary. I have set my heart on having the great museum under the scientific directorship of yourself and Professor Walcott. You would make a glorious team, and no similar opportunity has ever presented itself in this country. It is doubtful whether it ever will again. You would have enormous possibilities ^{your} before, and a people ready to be directed towards the highest and best things.

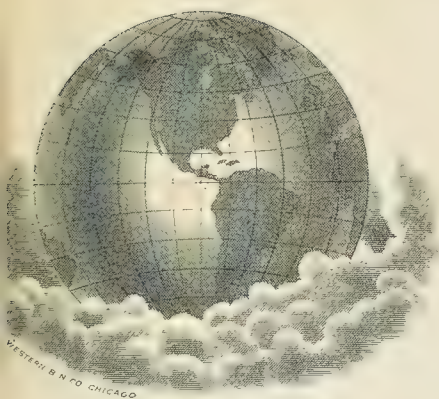
Mr. Skiff will doubtless explain the situation very fully and frankly. I have advised him to talk with you with the utmost frankness and wholly without reserve.

Your letter relative to New York was duly received. The above is my answer.

Very cordially yours,







World's Columbian Commission

EXECUTIVE COMMITTEE ON AWARDS,

JOHN BOYD THACHER, Chairman, Albany, N.Y.,
W. J. SEWELL, New Jersey. A. T. BRITTON, District Columbia.
A. B. ANDREWS, North Carolina.
B. B. SMALLEY, Ex-Officio Member, Burlington, Vt.

BUREAU:
ADMINISTRATION BUILDING,
Jackson Park,
CHICAGO ILL.

September 2, 1893.

Dr. W. H. Holmes,
C/o Mr. Geo. F. Kunz,
Manufactures Building.

Dear Sir:-

You have been duly confirmed as honorary judge in the
Department of Ethnology, World's Columbian Exhibition. Please
report for duty as soon as possible.

Yours,

Chairman, Ex. Committee on Awards.

INSTALLATION PERIOD AT THE CHICAGO EXPOSITION.

Naturally I had a very busy time after reaching Chicago, the first concerned being the installation of the Government exhibits which were extensive and complex.

The visit of Major Powell to the Exposition is especially worthy of note, the following being from a letter of mine written to Mrs. Holmes in Washington, July 27, 1893.

"The Powells and their group of friends came on Tuesday and occupied two of our parlors, the David T. Days took a tent and Mrs. Keeler got a room in the neighborhood. Barring a little growling about the available food by the ladies all passed off well. I took charge of the Major and for four days did nothing but take care of him and pilot him around. We saw all the anthropological exhibits and studied them with care and naturally landed occasionally in Old Vienna which place the Major enjoyed very much. He is quite weak and I had to take great care not to let him get tired out. He expects to go on to California in a few days."

1893

MRS. HOLMES AT THE OPENING OF THE CHICAGO EXPOSITION.

Government Building,
World's Fair, Chicago,
July 7, 1893.

My dearest boys and Gammy:

Last night I was going to write you, but I got home at 10:30 P.M. too tired to write.

Just a week ago today I left home, so my stay is half over and soon you'll have your mamma again.

We had a nice comfortable journey on here, and arrived at 10:30 A. M. I foolishly went right over to the Fair Grounds and stayed there until night. At eight o'clock the fireworks commenced, they were very much the same as our celebrations at inauguration times. But the crowd! 300,000 and more, until the grounds looked like the fly plaster in a restaurant at fly time - black with people. We were among the elect as luck would have it and saw them from the front third floor room of the Government Building.

I am writing while I wait to see the Caravels come in. Gammy will tell you what the Caravels are.

When I got back to the house the first afternoon I was in so much pain from my eyes, that I was forced to spend all of Wednesday on the bed with a damp cloth on my eyes. Thursday morning saw them well again.

In the Survey House we have a small but merry crowd - Dr. and Mrs. Day and her mother Mrs. Keeler, Mr. Frank Cushing and his wife, Mr. George Kunz of Tiffany's, and we have fine times at night. Both Mr. Cushing and Mr. Kunz have had so many interesting experiences, and are so full of fun that we have a gay time.

Yesterday (Thursday) morning I started out at nine o'clock and looked and tramped until 10:30 P.M. - 13 $\frac{1}{2}$ hours. Today (noon) I am just starting to go again. I have lots to tell you when I get home again, so won't take time to write it here. I am invited to go to an Indian dance tonight I will tell you all about it when I return. Tell Mrs. Lush (our summer landlady in old Nantucket) that I have been talking to Mr. Cushing about Yuna and the Great Desert, and that he is on her side. I have much to tell her when I get back again. I wish I could let you get a glimpse of this wonderful place. Where we live I see the Indians, Turks, Javanese, Japs and Chinamen constantly going by.

In the corner of the Government Building, the corner nearest the lake and Manufacturers' Building, is a nice cosey office, just fitted up for people like ourselves, and we have fine times seeing the crowd on the street and the nearby water.

Goodbye with love,

T. C. CHAMBERLIN
Head Professor of Geology
R. D. SALISBURY
Professor of Geographic Geology
J. P. IDDINGS
Associate Professor of Petrology
R. A. F. PENROSE, JR.
Associate Professor of Economic Geology
C. R. VAN HISE
Assistant Professor of Pre-Cambrian Geology
C. D. WALCOTT
Assistant Professor of Paleontologic Geology
W. H. HOLMES
Assistant Professor of Archeologic Geology

THE UNIVERSITY OF CHICAGO

Founded by JOHN D. ROCKEFELLER

WILLIAM R. HARPER, President

CHICAGO August 2, 1893

My dear Professor Holmes:-

I have received your three separates and have re-read very carefully your article in the American Geologist. I do not see how any one can fail to be convinced by the conjoint evidence of these three papers. I think you have made your case good, and that it will be so recognized with practical unanimity by discerning people. I am astonished at the weakness of the New Comersville case as shown by the photographs in the anthropological exhibit. If the conditions at the time of the find were those presented by the photographs, there is scarcely a rational possibility that the flaked stone was found in undisturbed gravels.

Very truly yours,



Professor W. H. Holmes.

HONORS FOR PROF. HOLMES.

A Farewell Banquet, With Speeches and Compliments.

Prof. W. H. Holmes, who recently severed his connection with the bureau of ethnology to accept the position of head of the department of anthropology in the great Field Columbian Museum at Chicago, was tendered a farewell banquet last evening that must have given him some idea of the popular hold he has upon the scientists and artists of this city, among whom he has worked so long and so successfully. Prof. Holmes, who is both a scientist and an artist, has a world-wide reputation in his special field of work, and from the speeches made last night it was evident that his colleagues believe that the big new museum in Chicago could not do better than it did in securing the services of Mr. Holmes at the head of one of the three departments of the institution.

Covers were laid for nearly a hundred in the tea room of Willard's for the banquet last evening, and the occasion was marked by every evidence of good fellowship, albeit marked by more than the usual amount of regret at losing a member of the fraternity of Washington's learned men. Mr. Frank Hamilton Cushing of the bureau of ethnology presided. At his right, about the tables which were beautifully decorated with flowers, were Prof. Holmes, Prof. Charles D. Walcott, Dr. G. Brown Goode, and on his left Senor Zeballos, minister from the Argentine Republic; Prof. W. J. McGee, W. E. Curtis and Dr. Cyrus Adler.

The first speech of the evening, after the menu had been satisfactorily disposed of, was made by Prof. G. Brown Goode of the National Museum, who responded to the toast of the scientific institutions of Washington. He referred to his pride in enjoying the acquaintance of Prof. Holmes and to the fact that he was one of an original group of seven scientific investigators. Dr. T. C. Mendenhall of the coast and geodetic survey followed him in a speech on Ohio, as the home of the guest, he himself hailing from the buckeye state. Other speeches were made by Mr. E. H. Miller, the artist, who spoke of the work done by Mr. Holmes as a water colorist; Dr. D. T. Day, Senor Zeballos, Mr. Wm. Eleroy Curtis, Prof. Thomas Wilson, Prof. Otis T. Mason, Judge J. D. McGuire and Prof. J. H. Gannett. Prof. W. J. McGee expressed the opinion that the dream of Jefferson for a great national university had been realized on a grand scale, and that the scientific institutions of Washington were in many departments leading the world. Prof. William Flint read a poem, and Prof. Charles D. Walcott presented Prof. Holmes, in behalf of his friends, with a large silver loving cup. The banquet closed with a graceful acknowledgment of the honor paid him by Prof. Holmes, in which he declared that for the encouragement in undertaking his new work he would be willing to go to a worse place than Chicago. All rose and sang "Auld Lang Syne," and a very pleasant incident in the life of a deservedly popular man was completed.

Washington STAR May 17, 1894

THE CHICAGO VENTURE

^{23.}
1894-5-6-7
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The leading part taken by me during the decade 1884-1894 in researches relating to the antiquity of man in America, and the geological problems involved in these researches, brought me into contact with a number of the geologists of the country interested in the geological phases of the problem. Among them was Dr. T. C. Chamberlain, a geologist of first distinction, who was, and is (1926) at the head of the Geological Department of the University of Chicago, who induced me to join his department of the University as non-resident Professor of Anthropic Geology, and as lecturer on the relations of the American race to the geological periods and formations. Through Dr. Chamberlain's influence I was later offered the position of Curator of the Department of Anthropology in the Field Columbian Museum, then coming into prominence among the museums of the country. It happened that while considering the Chicago offer there were strong influences at work to move me to accept a similar position in the New York Museum, Mr. Jessup being at that time President. The attraction of the two Chicago positions proved the stronger, however, and I prepared to close my long and most agreeable association with the Washington Institutions and my associates and collaborators of a period of twenty-three years. A farewell banquet was arranged in which sixty-four of my scientific and artistic associates and other friends participated. The banquet, fully described in a preceding volume, was a most interesting affair, and a tribute to me not readily forgotten.

I was soon established as Curator of the Department of Anthropology in the Field Museum, an event doubtless recorded in the reports and publications of that Institution. I had hardly gotten settled in the work when one of the most gratifying and important events of my life came to pass. I was asked by Mr. Alison V. Armour of Chicago to join him in a trip of exploration to Yucatan in his charming yacht Ituna, in which we sailed from Jacksonville, Florida, reaching Havana, Cuba, the day before Christmas, 1894. Sailing thence we were anchored off the port of Progreso, Yucatan, on December 30th. At this place Mr. Edward H. Thompson, ex-U. S. Consul at Merida, and a well-known student of archeology, joined the party. With this port as a basis of operations, visits were made to numerous localities on the peninsula of Yucatan, as well as in Mexico proper, three months of the winter season being devoted to the study of Botany, Geology, Anthropology and Natural History of these most interesting regions.

The first voyage was toward the east, and visits were made to the islands of Contoy, Mugerres, Cancun and Cozumel and to the mainland of Yucatan, opposite these islands. This part of Yucatan has rarely been visited either by travelers or by students of the history and resources of the country.

AMERICAN MUSEUM OF NATURAL HISTORY,

GENERAL OFFICE.

CENTRAL PARK, (77TH ST. & 8TH AVE.)

SECRETARY AND
ASSISTANT TREASURER.

NEW YORK,

February 24 1894

Confidential

Prof. W. H. Holmes.

Bureau of Ethnology.

Washington, D. C.

Dear sir.

I write you by request of the President, and with the understanding that the matter is to be treated as confidential.

Differences of opinion have arisen between parties here in reference to the work in the catalogues having been properly performed.

Reference is had of course to the material in the Department of Archaeology and Ethnology. Something in the nature of arbitration is needed by one conversant with the subject matter.

P. S. Holmes?

This is the first page of a letter
from the New York Museum offering
the ground for asking that I consider
going to New York instead of Chicago
in 1894. Chicago was preferred

The University of Chicago.

JULY 20, 1892.

Mr. W. H. Holmes

Washington D. C.

DEAR SIR:—

I take the liberty of addressing you in the hope of interesting you in the inauguration of the geological department of the University of Chicago, with which I have become connected. The staff of instructors and investigators is not yet fully determined but will embrace several able specialists. The endeavor of the department will be to furnish unusual facilities for advanced study, original research and technical training in geology and cognate subjects, with a view to professional work in colleges and universities, on official surveys, in industrial expert practice, and in private research. The shortness of the time before the opening of the University in October and the limitation of funds at once available will make it difficult to secure a full working outfit at the start. Besides, considerable portions of the material most valuable for special advanced study—the papers of working geologists—are not in the market and can only be secured, as separates, by the kindness of the authors.

It will therefore be an especial favor at a time of peculiar need if your generosity and interest in this new endeavor shall prompt you to furnish to the University such of your papers as you conveniently can. It will be peculiarly gratifying if you can make the list nearly or quite complete.

The department will publish a journal, under the guarantee of the University, through which public acknowledgement will be made.

Gifts of collections, especially those representing local or regional geology, or typical of some formation, or illustrative of some phase of structure will be particularly serviceable.

Books, maps and collections may be sent by express at the expense of the University, the simple address, University of Chicago, Chicago, Ill., being sufficient.

Soliciting your kind consideration, I remain,

Very respectfully yours,

J. C. Chamberlin

Head Professor of Geology.

THE UNIVERSITY OF CHICAGO,

OFFICE; 1212 CHAMBER OF COMMERCE BUILDING.

CHICAGO, *Aug 31* 1892

Mr. W. A. Holmes,

My dear Sir:-

At a meeting of the Board of Trustees of the University of Chicago held today, you were elected Non-resident Professor of Archaeological Ecology. It is understood that you will not be called upon to give instruction this year 1892-93.

Hoping to receive from you an early acceptance of this position,

Remain

Sincerely yours

T. W. Goodspeed
Secretary.

Per G. H.

Washington, D. C.
August, 1892.

T. W. Goodspeed, Esq.,
University of Chicago,
Chicago, Illinois.

My dear Sir:

Your favor of August 31st announcing my election to the non-resident Professorship of Archaeologic Geology in your University came to hand several days ago, and I must apologize for the delay in replying. I have explained to Professor Chamberlain. I accept the appointment with much pleasure and shall await the commands of the Board of Trustees as to time and duties.

Very respectfully yours,

W. H. HOLMES

Washington, D. C.,
August, 1892.

Prof. T. C. Chamberlain,
University of Chicago,
Chicago, Illinois.

My dear Sir:

I fear that you will think me slow in answering your communications of a week ago. I wished to talk with Major Powell before accepting the appointment you have so kindly secured for me. He seems very much pleased with the arrangement, and I shall at once notify Secretary Goodspeed of my acceptance. I join Salisbury in the Delaware Valley tonight.

Very sincerely yours,

W. H. HOLMES

*Copies -
original drafts*

THE UNIVERSITY OF CHICAGO

1892-3

PROGRAMME OF COURSES IN
GEOLOGY

*W. H. Holmes, Non Resident
Professor of Archeologic Geology*

Page 10

CHICAGO

The University Press of Chicago

1892

UNIVERSITY OF CHICAGO 1892-97

XXI. THE DEPARTMENT OF GEOLOGY.

OFFICERS OF INSTRUCTION.

THOMAS CHROWDER CHAMBERLIN, PH.D., LL.D., *Head Professor of Geology.*

ROLLIN D. SALISBURY, A.M., *Professor of Geographic Geology.*

JOSEPH PAXSON IDDINGS, PH.B., *Professor of Petrology.*

RICHARD ALEXANDER FULLERTON PENROSE, JR., PH.D., *Professor of Economic Geology.*

WILLIAM H. HOLMES, A.B., *Professor of Archæologic and Graphic Geology.*

CHARLES R. VAN HISE, PH.D., *Non-resident Professor of Pre-Cambrian Geology.*

OLIVER CUMMINGS FARRINGTON, PH.D., *Professorial Lecturer on Determinative Mineralogy.*

STUART WELLER, S.B., *Associate in Palæontologic Geology.*

JOHN PAUL GOODE, S.B., *Assistant in Physiography.* (Summer Quarter, '98.)

WALLACE WALTER ATWOOD, S.B., *Assistant in Physiography.* (Summer Quarter, '98.)

13. **Anthropic Geology.**—A course of special lectures on the critical relations of Geology to Archæology, with collateral readings.

PROFESSOR HOLMES.

[Liable to be withdrawn.]

14. **Graphic Geology.**—A course of special lectures and illustrative exercises on the application of sketching and other graphic methods to geological subjects.

PROFESSOR HOLMES.

[Liable to be withdrawn.]

DEPARTMENT OF GEOLOGY.

1892-3.

OFFICERS OF INSTRUCTION:

THOMAS C. CHAMBERLIN, PH. D., LL. D.

Head Professor of Geology.

ROLLIN D. SALISBURY, A. M.

Professor of Geographic Geology.

JOSEPH P. IDDINGS, PH. B.

Associate Professor of Petrology.

R. A. F. PENROSE, JR., PH. D.

Associate Professor of Economic Geology.

CHARLES R. VAN HISE, PH. D.

Non-resident Professor of Pre-Cambrian Geology.

CHARLES D. WALCOTT,

Non-resident Professor of Paleontologic Geology.

WILLIAM H. HOLMES,

Non-resident Professor of Archæologic Geology.

GEORGE BAUR, PH. D.

Assistant Professor of Paleontology.

(Biological Department.)

EDMUND JÜSSEN, PH. D.

Docent in European Stratigraphy.

COURSE 21. Archæologic Geology. A course of special lectures on the critical relations of Geology to Archæology. Not offered for the current year. 5 hrs. a week, Minor.

NON-RESIDENT PROFESSOR HOLMES.

For Graduates and Advanced Students of the University College.



THE MUSEUM BUILDING, JACKSON PARK.

*Temporary building used for the 1894 Exposition, and replaced
later by the present - splendid building*

OFFICERS AND STAFF OF THE FIELD COLUMBIAN MUSEUM

President -- Edward E. Ayer

Vice President -- Martin A. Ryerson

Second Vice President -- Norman B. Ream

Chairman of the Executive Committee -- H. N. Higinbotham

Director -- F. J. V. Skiff

Anthropology -- W. H. Holmes, Curator

Physical Anthropology -- G. M. West

Botany -- C. F. Millspaugh

Geology -- O. C. Farrington

Industrial Arts -- L. Elfreth Watkins

Railway -- J. G. Pangborn, honorary

Zoology -- Daniel G. Elliott

Ornithology -- Charles B. Cory

Library -- E. L. Burchard, Recorder and Librarian.

Personal
Written at Home, 5014 Jefferson Ave.,

Chicago, Ill., Feb. 27th, 1894.

Prof. W. H. Holmes,

Ethnological Bureau,

Washington, D. C.

Dear Sir:-

I received your letter enclosing a number of papers in the name of

Written at Home, 5014 Jefferson Ave.,

Chicago, Ill., Feb. 27th, 1894.

Personal

Prof. W. H. Holmes,

Ethnological Bureau,

Washington, D. C.

Dear Sir:-

I received your letter enclosing correspondence in the matter of the inquisitiveness of Dr. Boas, which I will preserve until you are in the city, or will return it to you if you desire. I was aware of the knowledge which the Doctor had obtained, and now that it has all transpired do not regret in the least that he knows what he does. With a full knowledge that he will not continue in charge of the Department, I have arranged with him to complete the installation. I prefer, however, that you should consider this confidential. Your treatment of the case was judicious and dignified, and I dropped your communication in the letter box myself, after reading the copy.

We are getting along very nicely with the installation, unless it may be the economic geology, which I prefer not to go much farther with until the arrival of Mr. Walcott. Mr. Watkins is taking hold in splendid spirit and if his health does not fail, will have a very interesting Department.

Word received from Mr. Pangborn promises that work on the Railway Museum will be actively begun within ten days. Dr. Boas is handling the installation of the material intrusted to his care superbly. His methods are economical, intelligent, and to an extent artistic, and I *fully* *confident* *that* *it* *is* *all* *it* *should* *be*.

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COLUMBIAN MUSEUM OF CHICAGO.

FINE ARTS BUILDING, JACKSON PARK.

Prof. W. H. H. 2.

in the Anthropological Department this week.

Very sincerely yours,

Frederick

Not Copy

THE UNIVERSITY OF CHICAGO

FOUNDED BY JOHN D. ROCKEFELLER

WILLIAM R. HARPER, President

CHICAGO February 5, 1901

- T. C. CHAMBERLIN
Head Professor of Geology
- R. D. SALISBURY
Professor of Geographic Geology
- J. P. IDDINGS
Associate Professor of Petrology
- R. A. F. PENROSE, JR.
Associate Professor of Economic Geology
- C. B. VAN HISE
Non-resident Professor of Pre-Cambrian Geology
- C. D. WALCOTT
Non-resident Professor of Paleontologic Geology
- W. H. HOLMES
Non-resident Professor of Archeologic Geology

My dear Professor Holmes:-

I am very deeply gratified to learn of your decision. The attending circumstances tend to emphasize its importance with those interested

Director.

For
at
:

T. C. CHAMBERLIN
Head Professor of Geology
R. D. SALISBURY
Professor of Geographic Geology
J. P. IDDINGS
Associate Professor of Petrology
R. A. F. PENROSE, JR.
Associate Professor of Economic Geology
C. R. VAN HISE
Non-resident Professor of Pre-Cambrian Geology
C. D. WALCOTT
Non-resident Professor of Paleontologic Geology
W. H. HOLMES
Non-resident Professor of Archeologic Geology

THE UNIVERSITY OF CHICAGO

Founded by JOHN D. ROCKEFELLER

WILLIAM R. HARPER, President

CHICAGO February 5, 1894

My dear Professor Holmes:-

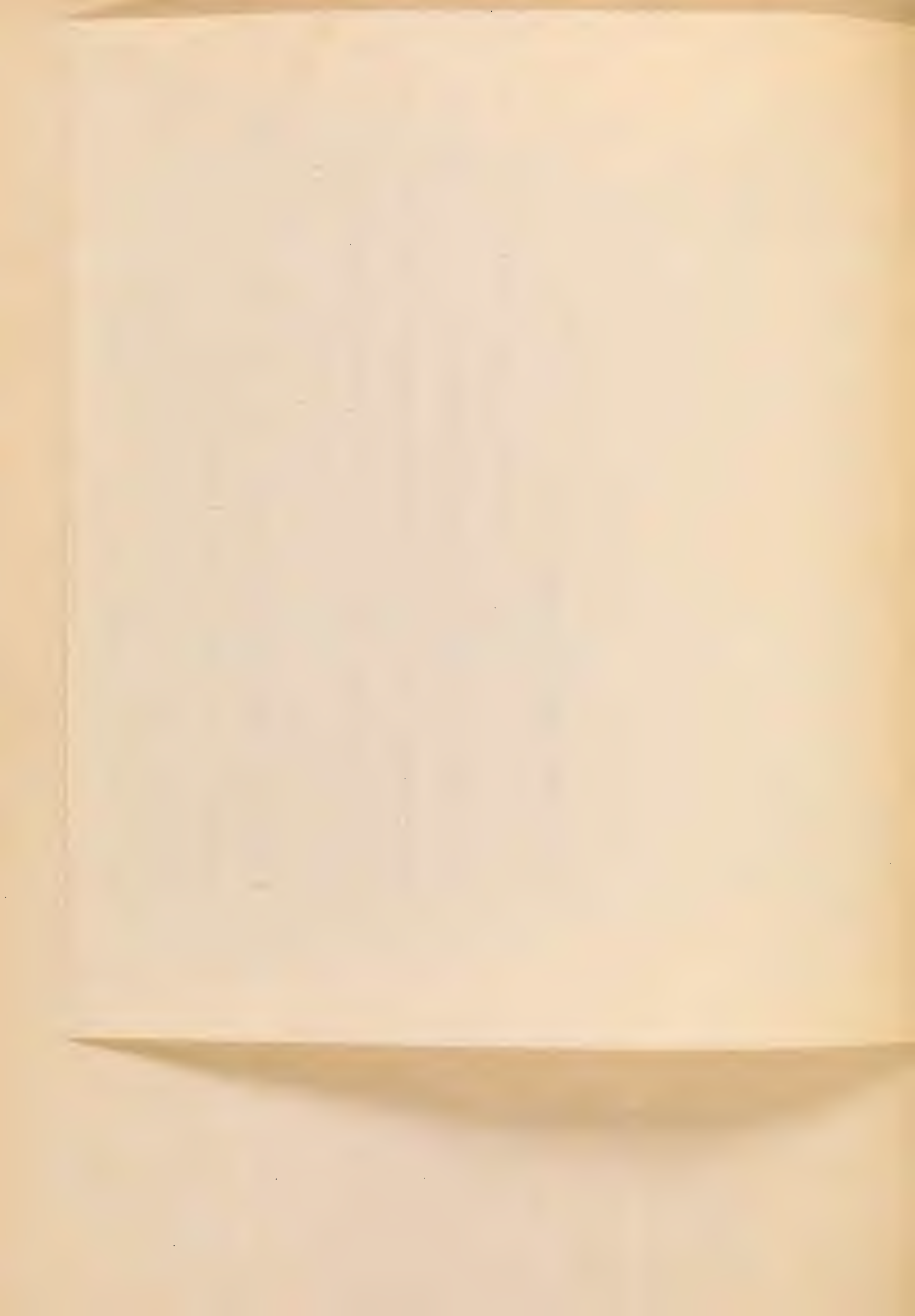
I am very deeply gratified to learn of your decision. The attending circumstances tend to emphasize its gratefulness, and will make you the stronger with those interested here, and make me also stronger for having realized the situation and prompted them to immediate action. From Mr. Skiff's letters I know he is very greatly pleased with you. We are rejoicing (for although it is confidential, I could not keep it from those in the family). We shall give you a very hearty welcome and do all we can to make your coming and your stay pleasant.

Very truly yours,

T. C. Chamberlin
Perm.

Professor W. H. Holmes,

Bureau of Ethnology.



LAKE FOREST, ILL., April 23, 1894.

My dear Holmes:

I am glad to see by the Chicago papers that you have received
an appointment in charge of the Archaeology of the Columbian Museum.

Director.

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LAKE FOREST, ILL., April 23, 1894.

My dear Holmes:

I am glad to see by the Chicago papers that you have received an appointment in charge of the Archaeology of the Columbian Museum. It will be very pleasant for me to have you in Chicago and so prominently identified with the scientific work that we are trying to develop. I am not merely gratified on account of your individual appointment, but also that it indicates that we are to have some genuine scientific work there. The danger has been the common danger of Chicago, namely, to make the Columbian Museum a big show instead of a center for scientific collections for study and work.

With best wishes, I am

Yours sincerely

Dictated.

John M. Coulter

2-1 1939

FIELD COLUMBIAN MUSEUM
CHICAGO.

Chicago, Ill., Oct. 27th, 1894.


Dr. W. H. Holmes,
Curator of Anthropology,
Field Columbian Museum,

Dear Sir:-

In conformance with the instructions of the Executive Committee, I hereby confirm your engagement as Curator of the Department of Anthropology at a salary of Three Hundred Thirty-three and 32/100 Dollars (\$333.32) per month, with the understanding and agreement that if the Museum desires to dispense with your services, such dismissal can only take place upon three months notice thereof, and on the other hand that if you desire to discontinue your services with and for the Museum, you shall give to the Museum three months notice of such intention.

Please attach your approval to the duplicate letter herewith enclosed as an indication of your acceptance of this contract.

Yours respectfully,



Director.

Chicago, Ill., Oct. 27th, 1894.

Dr. W. H. Holmes,

Curator of Anthropology,

Field Columbian Museum,

Dear Sir:-

In conformance with the instructions of the Executive Committee, I hereby confirm your engagement as Curator of the Department of Anthropology at a salary of Three Hundred Thirty-three and 25/100 dollars (\$333.32) per month, with the understanding and agreement that if the Museum desires to discontinue your services, such discontinuance can only take place upon three months notice thereof, and on the other hand that if you desire to discontinue your services with and for the Museum, you shall give to the Museum three months notice of such intention.

Please attach your approval to the duplicate letter herewith

enclosed as an indication of your acceptance of this contract.

Yours respectfully,

Director.

In the spring of 1894, as already noted, I was offered the Curatorship of Anthropology in the Field Columbian Museum, Chicago, by Mr. F. J. V. Skiff, Director, who painted a glowing picture of what the future held for me in that Institution. A salary of \$5000 was in sight, along with free and untrammelled control of the Department to carry out my ideals of what such a Department should be. I accepted this offer, to take effect June 30, 1894, and as a result side tracked the prospective offer by the New York Museum, and resigned from the Bureau of Ethnology, to take effect June 30, 1894.

Dr. David T. Day, a geologist and friend, arriving from Chicago, called on me on my return from a brief visit to Chicago, and I discovered that he had a mission with respect to my appointment. He suggested that I had better hold on to my old place in Washington tentatively, accepting the position for a year on trial. I at once realized that Mr. Skiff was using Dr. Day as a tool to work out his own ends. A few days later I arrived in Chicago to find my suspicions of change of attitude and unfriendliness well-founded, and passed through a period of anxiety and humiliation. Skiff, acting consistently with his innate cunning - the outstanding features of his character, wished to keep me on the ragged edge of uncertainty. He took occasion to remark that Mr. Jones, representing Mr. Higginbotham, had said to him that "Holmes'

employment is only for a year," and inquired if this was my understanding. I realized again that Mr. Jones' name was a cloak to conceal his own underhand methods.

Skiff informed me that I must see Mr. Higginbotham who was the official responsible for the make up of the Museum staff, and Skiff accompanied me. In a long interview in which they questioned as to my age and occupations, telling me that I "would be expected to work, etc., etc.", and that my engagement was for a year only. I realized that this was done to forestall any unfavorable action that they might wish to take in the future. At the bottom of it all was Mr. Skiff's fear that my position and popularity might lead to his own discomfiture.

YUCATAN

894-5

VOLUME VII

SECTION II. The Armour Expedition to Yucatan,
1894-95.

Return to Chicago and the Field Museum,
1895.

Reviews of my book on the Antiquities
of Yucatan.

When the Yucatan volume was finished in Chicago, in 1896, the refuse was thrown together as quite useless, but 33 years later the attempt to bring the scattered fragments was necessarily a failure and this patch-work volume is the result. 1000 copies only of the volume were printed, which accounts for its rarity.

WHH 1930



A. V. Armour in Yucatan, 1895
with one of the supporting figures of
a stone table.

36 years later Mrs. Armour is
conducting important screen life
production on the American Coast.
Mrs. Armour is a well-known actress.

STEVENS

AND

ALCOCK

Complexion

medium

Face

oblong

in the year 1894 and of the

Independence of the United States

the one hundred nineteenth

Signature of the Bearer

W. A. Graham

NO 18436



DEPARTMENT OF STATE

To all to whom these presents shall come Greeting:

I the undersigned, Secretary of State of the United States of America,
hereby request all whom it may concern to permit
William A. Holmes
a Citizen of the United States

Description.

Age 48 Years
Stature 5 Feet 10. Inches Eng.
Forehead medium.
Eyes dark brown.
Nose straight
Mouth mustached.
Chin bearded.
Hair dark brown.
Complexion medium
Face oblong

_____ safely
and freely to pass and in case of need to give
him all lawful Aid and Protection.

Given under my hand and the
Seal of the Department of State,
at the City of Washington, O
the 19th day of December
in the year 1894 and of the
Independence of the United States
the one hundred nineteenth

Signature of the Bearer.

W. A. Graham

June 25. 1895

THE SLAYERS,
10 DENMARK ST. W.

My dear Holmes

I left home
without seeing you again
as I expected to up to
the last moment - The
sketches were charming
and should be kept
together as a collection as
long as possible - When
you do separate them
or if you are making
copies Morton would
be pleased to have one
of Thompson's house -

and the two which
I have marked "H.V."
would please me very
much - All who
saw them were delighted.
I hope they reached
you in good order -

When any of the
manuscript - is in
print don't forget to
send me a few copies
to the University - Club
here - With regards
I am Yours very truly
William V. Aruman

Department of State,
Washington, December 19, 1894.

To the

Diplomatic and Consular Officers
of the United States.

Gentlemen:

At the instance of Mr. W^m Woodville Rockhill,
Third Assistant Secretary of State, I take
pleasure in herewith introducing Professor
W^m H. Holmes, of the Smithsonian Institution
and the Field Columbian Museum of Chicago,
who is about proceeding to Mexico there to
pursue certain scientific researches in
Mexican and other southern portions of the
Republic.

I cordially bespeak for Professor Holmes
such official courtesies and assistance in his
work as you may properly extend.

I am, Gentlemen,

Your obedient servant,

W. Q. Gresham

7/11



*Board of Lady Managers
of the
World's Columbian Commission.*

Mrs. Bertha Honoré Palmer, President.

Mrs. Susan G. Cooke, Secretary.

Committee on Awards.

Mrs. Virginia C. Meredith, Chairman.

Room 704. Masonic Temple

Chicago, July 18, 1894.

Prof. W. H. Holmes,

Dear Sir:

I have pleasure in handing you herewith the Diploma of Honorable Mention to which you are entitled under a resolution of the Congress of the United States, directing that such a Diploma may be conferred upon those who assisted in an important way in the production and perfection of an exhibit which received an award in the Columbian Exposition.

A certificate is now on file in this office declaring that you were connected with the exhibit indicated in the Diploma.

With congratulations, I am,

Yours very truly,

Virginia C. Meredith

Chairman, Committee on Awards,
Board of Lady Managers.

ARMOUR EXPEDITION TO YUCATAN 1894 - 95

- 1894, Dec. 22 Left Jacksonville, Florida
23 On the way
24 Christmas eve, Havanna
25 Christmas day, Havanna
26 Havanna
27 Leave Havanna for Progreso
28 Arrive before Progreso
29 Off Progreso
30 Land and go to Merida. Return to boat in morning.
Sail for Cozumel
31 Reach Dolores Harbor late, land on sand bar.
- 1895, Jan. 1 Mugerres Island
2 Maca Ruin
3 Island of Chancun
4 Cozumel Island
5 Cdral Village
6 Sunday sketched at Cozumel, Village of St. Michaels.
7 Ruins off Tuloom
8 Left Cozumel in the afternoon.
9 Reached Progreso. Sailed for Merida
10 Left Merida for Ticul
11 At Uxmal
12 From Ticul to Merida
13 Sunday, Merida
14 Left Merida for Izamal
15 Left Izamal in evening for Chichen Itza
16 Reached Chichen Itza
17 Chichen Itza study
18 " " "
19 " " "
20 " " "
21 " " "
22 Left Chichen Itza for Zama
23 Arrived at Izamal
24 Arrived at Merida
25 At Merida
26 Arrived at Progreso

c
a

My Dear Kate

I p

little while to see a
through the narrow
harbor here that
write you

the delightful

Monday the 3rd
and I got of
Captain, now it
lies near us as
now ten a.m.
boats deck under
all about are ten

harbor of
we steamed
to and point-
at security
in the
stellated
light base
e obscurity
acid, gently
g to slope
We
ene turning
ud in the
nd hard out-
forms that
an alligator
t was that
ahead of us
ough which
rent we were
ered if we

should actually pass through this fire so steadily did

On board the Itarra.

Havana Cuba

Dec 26th 94

Day after Christmas

My Dear Kate

I put away my sketching for a little while to scribble you a letter. We have passed through so much of interest since entering the harbor here that I hardly know what to select to write you. Christmas passed very quietly and the delightful summer weather still continues.

Monday the Tampa steamer left just as we got in and I got off a few poor lines to you by the Captain. Now the Campanero steamer The Mascotte lies near us ready to start at about noon. It is now ten A.M. I have been sketching on the boat's deck under the awning all morning. The scenes all about are tempting and inspiring but I have not

(42)
 felt immortalized my self by anything that I
 have done. We are in the middle of the
 harbor which may be nearly a mile and a half
 long and three fourths wide. Looking out the
 picturesque fort and El Moro Castle with its tall
 yellow light house ring of no more picturesque
 times to the sea. On the left is the city



We look against the beautiful fortress crowned bluffs
 on the right with sloping in picturesque valleys
 nestled against the base X and still to the
 right up the harbor the hills and distant fields
 as fresh as spring are seen. At the left XX
 the city, hidden by boats & ships and fort works

entirely built around the bay. Last night we landed at A
 five of us. However, much longer. Numerous willows & poplars grow
 + myself, and look swamps up with the city. Everything is
 Spanish and the houses, people, foliage, etc are wholly foreign and
 very interesting. The streets are narrow and the side walks add no
 one two feet wide. There are lots of people who dodge us and
 out and small carriages driving about every where driven by little
 boys like horses. Dirt roads, small heavily people, everywhere. At
 as to women that all are dressed like maidens. One found
 by the palace + public squares & parks out in the ridge which
 leads west to the great cemetery. The buildings are interesting



Continues partly around the bay. Last night we landed at A
five of us. Arrived, Mullhamp. Roman Williams & prof Macquand
& myself, and took carriages up into the city. Everything is
Spanish and the houses, people, foliage etc are wholly foreign and
very interesting. The streets are narrow and the side walks seldom
over two feet wide. There are lots of people who dodge in and
out and small carriages dashing about everywhere drawn by little
my like horses. Dirt smells, small bony people everywhere. It
is so warm that all are dressed like midsummer. We passed
by the palaces & public squares & parks out on the ridge which
leads west to the great cemetery. The suburbs are interesting

and the dwellings attracted. We took supper at a French restaurant down by the sea shore and came back by street car.

In town at half after 8 we went into the opera house to see Lucia de Lamermore but more to see the people. On the streets we saw only the rabble. Here we could see all the swell dom of Havana. By a most remarkable arrangement of the seats & boxes the visitor can go all around the theater - five floors and look through lattice work directly into the boxes which encircle the entire theater. There were hundreds of the beauties of Havana in theater costume and we studied them to our hearts content. Many were attractive with a soft dark beauty, but few had fine features and all look like playthings.

Yesterday morning I took one of the picturesque little boats and spent several hours knocking about the harbor sketching & shooting right and left with my camera. This morning I have made a little

Sunset scene observed off the coast of Florida for Mr Williams, who is off for home by today's boat.

This afternoon about four or five we sail for Yucatan and if the weather keeps as now we shall be in progress tomorrow and then in a few hours be in Merida. Then a little later in the ruins of Chichén Itzá.

I have to write to do & write for records.

So good bye.

I hope you are all well and that you have written me of Merida. This paper is greasy. With love
Will

A NORTHER ON THE GULF MEXICO

DECEMBER 27, 1894.

After a pleasant Christmas day in the Harbor of Havanna and the summer weather of the 26th, we steamed out the narrow harbor past picturesque El Moro and pointed to the westward with a feeling of pleasant security and at-homeness upon the sea. It was late in the evening and the sun had set behind a long castellated cloud hanging low on the horizon with a straight baseline a little above the sea which line in the obscurity of dusk made a sort of false horizon, the placid, gently rolling sea, reflecting the upper sky, seeming to slope as an inclined plain into the dusky distance. We lounged upon deck and enjoyed the restful scene turning often however to remark upon the curious cloud in the west with its growing silhouetted solidity and hard outline which above was broken up into curious forms that reminded us of a serpent's head at the left, an alligator at the right and a lion above. The effect was that of a silhouette against the sky and directly ahead of us was a great ragged rent through the mass through which the greenish sky shown. Directly into the rent we were sailing and when we went down to bed we wondered if we should actually pass through this rift so steadily did

46
it hold its place. We were happy in our ignorance of the signs in the sky and went below not to return to deck for nearly two days.

Toward midnight the norther broke and we awoke by the rolling of the ship and the roar without, to realize that the stories that 300 years before played such pranks with the carvels of the first explorers had not forgotten their traditions, but we had a better boat than these early mariners who were ten days in reaching Yucatan while inside of 40 hours we were anchored at Progreso though still dancing unpleasantly in the pale yellow green sea. There was but little rain, the threatening gray clouds seeming to be charged with a gale that had no intervals nor end, and we passed two nights and a day outside of Progreso before a landing could be effected.

Merida, Yucatan

January 14, 1895.

My dear Mr. McGee:

I am just in Merida over night, having come up from Uxmal. In the morning we are off for Inzamal and Chichen Itza. The Uxmal ruins are superb representing a culture and people the more remarkable the closer we approach them. The ride of 25 miles in a volans was also a novel experience. The roads are limestone beds of awful ruggedness and the vehicle is a boxbed on two high heavy wheels drawn by 3 mules abreast. The volans and mules are marvels in having existed through the 50 miles made that day. I have taken the volans as my fetish. We have had two "northers" on the gulf of Mexico but that Volans ride was equal to ten "northers" tied in knots.

Everything, everywhere, is limestone, soft rather massive and full of fossils, hard to secure as the rock is friable or gnarled and brecciated. The formation is late tertiary I suppose.

What I am coming to is to ask that if possible you send to E. H. Thompson, Merida, Yucatan, some reports - The Annuals after the 9th, Bulletins, save Pillings, the quartos save VI and VII, as far as you can.

Thompson is at work in Chichen - owns it, and deserves everything.

Yours truly,

W. H. HOLMES



Off. Progresso. Dec. 29, '94

Dancing before Progresso, American yacht. The Stena, 1895-

REMNANTS FROM FIELD NOTE BOOKS

DOWN THE EAST COAST OF YUCATAN - 1894-5. December 30th.

Field Notes of W. H. Holmes.

Leaving Merida early in the morning of December 30th, we steamed away in a fine sea to the East, turned to the South around Cape Catoche, visited a Norwegian wreck, a bark, on the island of ~~Cozumel~~. Then crossed into Dolores harbor by dangerous anvil rock. Cozumel: Anchored off the village of Cozumel. We often had occasion to wonder at the charms of the waters, the white sand bottom reflects the light by day, and even the moon by night illuminates the bottom at 30 or 40 feet, so that even small objects can be seen with clearness.

The pleasures of a yacht sailing down the east coast of Yucatan are hard to surpass. To be sure the coast is monotonous, especially that of the mainland, which is but a strip of sand or low ledges of rock, capped with vegetation which stretches along the western horizon disappearing with a mirage effect at the north and south. The islands are much varied and extremely interesting, but it is not in these, that the charm lies but in the water, or the water under its various effects of deep blue, or blackened effects out in the channels and of glorious and infinitely refined effects of color along the inner shores and across the lovely bays enclosed by islands - such greens - pale lemon to pure emerald and thence to dark greens spot and streak the field, and then alternate with such bits of purple

in various hues, that emphasized by the marvelously transparent water rival the Bay of Naples and the shores of charmed Sicily.

The strong effects of course are due to the color of the wonderful water playing over beds of white sand flecked and streaked with dark beds of weed and deep lying rocks and again over these the play of cloud shadows. I shall not soon forget the views back from the shores of the mainland at Nisco, with the six miles of sea separating it from Mugerres, banded by hues of blue and green and purple that rival the spectrum for brilliancy and surpass it in the transparent delicacy that only such water can give. Then with the white beaches and the gently lapping surf, pale tinted at the border, and the white cuban fisher boats breaking the monotony, the picture is complete. These fascinating effects are never so favorably seen as from the strong little launch, which sails through the water so low down, that one seems to be on intimate terms with the sea and its colors and it is possible to peer deep into the water and watch the fish, follow the great turtles, or luxuriate, or the play of color on the bottom, fathoms below.

Sailing on these island waters is always interesting for we have always the added interest of the land, the verdure, the villages, the fisherman and their craft, the nearness of the life of the water, the fish and turtles and crabs and sponges, etc. etc., birds and above all to the aesthetically inclined mind, the

play of color that goes on like a subdued kaleidoscope between the limpid waters and the variously tinted sea bed.

Then again we have an occasional dip into the sea proper with its accompanying phenomena of strength and somberness and storm, its gorgeous sunsets and the roll and pitch of the vessel.

MUGERES AND COZUMEL.

Jan. 4: A day sadly without features of a scientific nature. The sail was charming enough, out of the iridescent bay, past Mugerres Castle into the black, turbulent gulf stream, down this, along the shores of monotonous country and across the head of Cozumel, (all low forest covered shores with a little white sand next the waters and an occasional palm tree lifting its head above the general foliage), and around to St. Michaels, where we anchored within a hundred yards of the shore.

The village of huts, hovels and fair houses face the water in a scattering way and extend back into the groves and copses. After the official proceedings essential to landing were over Dr. Millspaugh and I went ashore, wandered through the village and struck a cattle trail that led us a mile or two into the rank growing jungles. I found the rocks outcropping a little all along and gathered a few tertiary fossils. Turning out toward the west we reached the shore a mile above the village and were considerably exercised to find ourselves covered with the pestiferous garapatas, a wood tick. These we brushed off as best we could and when aboard changed clothes.



RUINED TEMPLE, MUGERES ISLAND,



ANCIENT MONUMENTS OF YUCATAN.

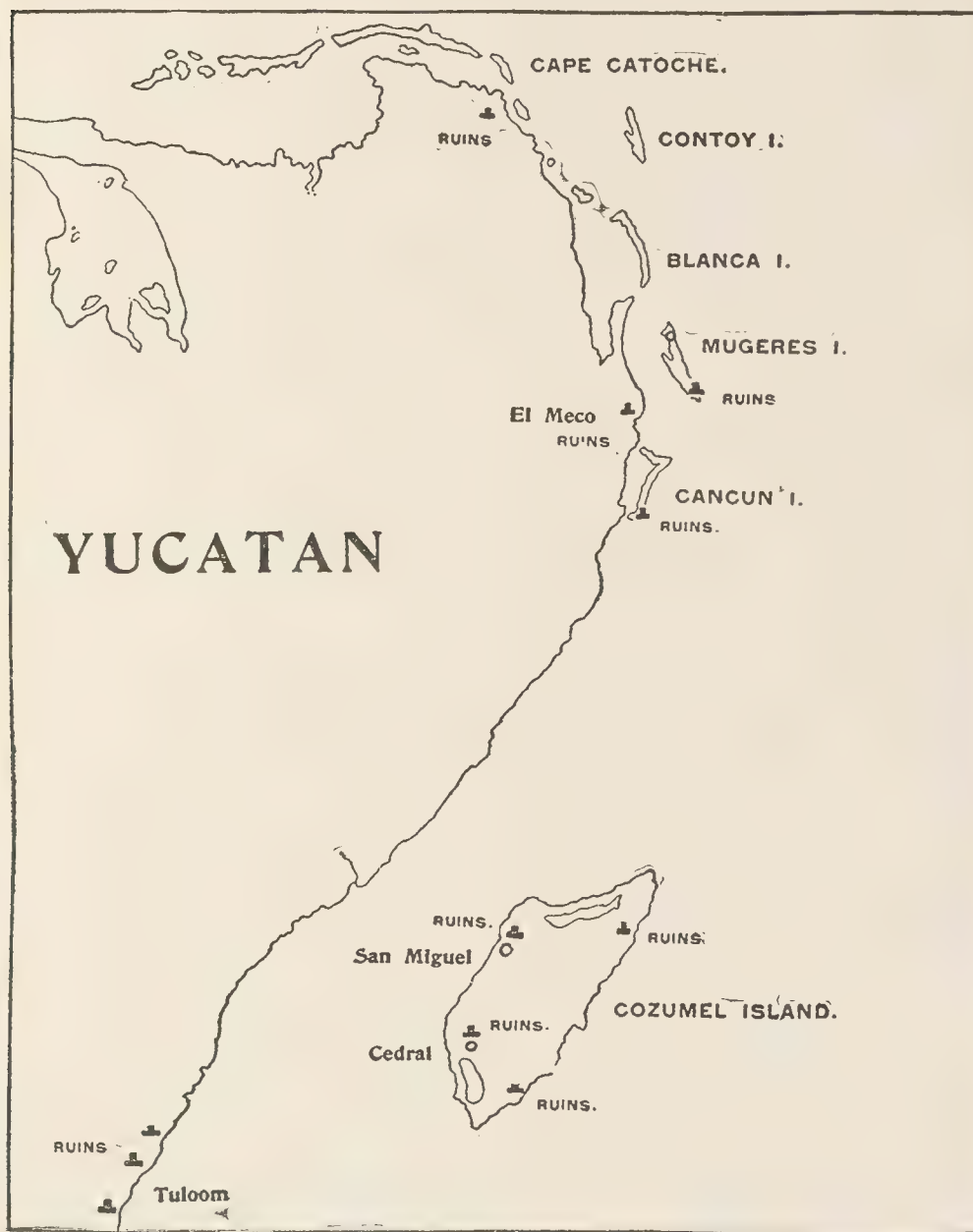
It is said that an English tourist in America offered the following as an excuse for his calling on the poet Longfellow without an introduction: "Your country, sir, is so awfully big and new one can't see it in an age. Then, sir, there are no castles, no ruins to tell of old times, so I thought I'd drop in and see you as one of the curiosities." There are Americans who do not consider themselves as old who can recall a time when they regarded their own country much as the Englishman is said to have done. Not so many years ago portions of New Mexico, Arizona and Southern Utah and Nevada were marked in our school geographies as "Unexplored Territory." This territory was supposed to be a wilderness inhabited by grizzly bears and barbarous Indians, and such was the case. Yet scientific explorers like Professor Holmes have recently demonstrated that the land marked "unexplored" is rich in the remains of forgotten races, and that the newest land in America rivals in human interest those parts of the Old World which are popularly supposed to be hoary with antiquity.

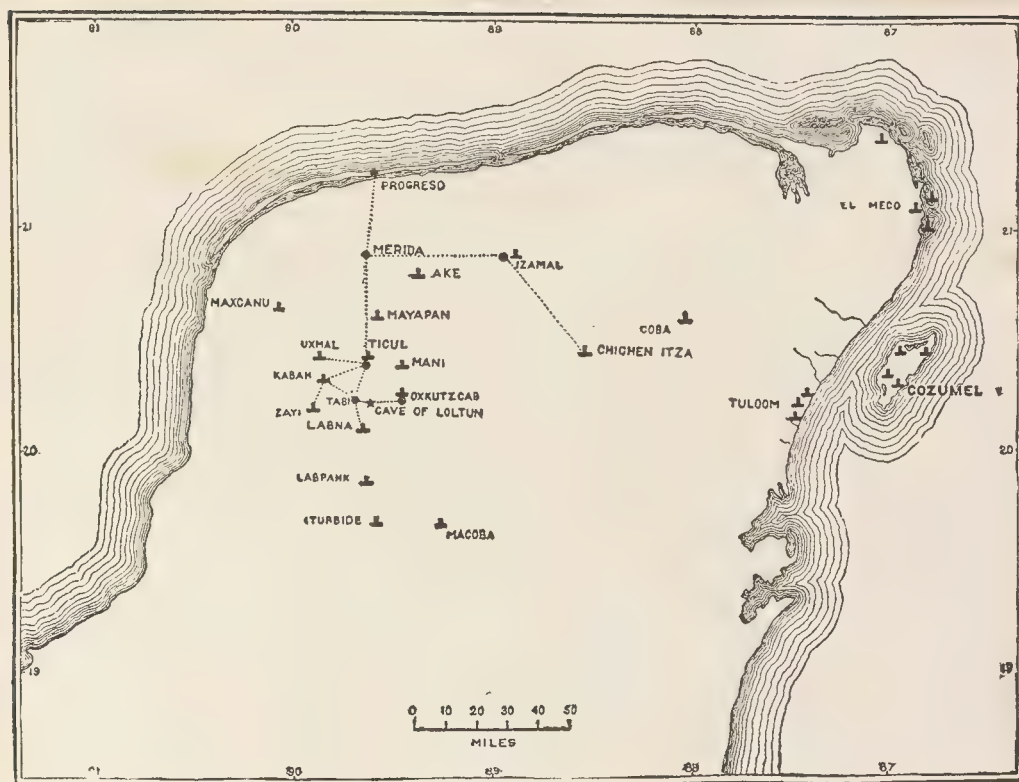
Because of the historic threads—sacred and profane—that link us to the past, we in America are apt to ignore the archeological wonders at our own door in contemplation of the ruins in the valley of the Nile and along the Tigris and Euphrates. Although known of since the days of the Spanish invasion, it is only of late years that the attention of Americans of average intelligence has been directed to the mighty chain of ruins that extends from the valley of the Gila, in Arizona, to the Isthmus of Panama. We are just awakening to the fact that America has ruins that rival in interest those of the Old

NOTE.—A review of *Archeological Studies Among the Ancient Cities of Mexico. Part I.: Monuments of Yucatan*, by WILLIAM H. HOLMES. The illustrations are from Prof. Holmes' original drawings and photographs.

World, with the added mystery that we have no tangible clue to the builders of the great mounds in the Mississippi Valley, and can only speculate as to the name and fate of the civilized race or races that built the pyramids, palaces and temples that excite the wonder of the traveler along the Cordilleras or the wanderer through the broken hills and jungles of Yucatan.

But it is not on the mainland alone that these interesting ruins are to be found. Professor W. H. Holmes, though not the first to call attention to the fact, shows us and illustrates his statements by a map which we reproduce, that the girdle of islands along the east and south coasts of Yucatan, share in the ruined wonders of the mainland. This particularly applies to the islands of Contoy, Mugerres, Cancun, and Cozumel, which islands have not received from students of archeology the attention they deserve.





MAP OF YUCATAN SHOWING LOCATION OF INLAND RUINS.

In his report of the work done in Yucatan, Professor Holmes gracefully refers to the fact that Mr. Allison V. Armour, of Chicago, took him to Mexico in his yacht, and in every way in his power aided the enterprise. It is pleasant to record that not all of our young men of wealth are given over to the gratification of self. That the author of this admirable report has the imagination of the artist, as well as the accuracy of the scientist, is shown by this extract from his introduction :

We are told by the early Greek historians that a broad continent, known as Atlantis, once spread out over what is now the middle Atlantic Ocean ; that this land was inhabited by a vigorous and cultured race of people who carried their arms westward to the furthest limits of the Mediterranean, and that the Greek gods, righteously angered by these encroachments, retaliated by sending Atlantis to the bottom of the sea. It has been a favorite theory with many students that the American races may have been derived from this source, inheriting therefrom the germs of that strange culture now represented by so many ruined cities. Whatever may be the truth with respect to the disappearance of the one continent, it is a curious fact that another land has risen from its watery bed. We are able to clearly show, by the aid of geology, that a large part of the great block of *terra firma*, now known as Yucatan, is a new-born realm. The massive beds of limestone, of which the peninsula is formed, contain, and are largely made up of, the remains of the marine forms of life now flourishing along the shores. Fossil shells, obtained from the rocks in various parts of the country, are all of living species, and represent the late Pliocene or early Pleistocene times, thus possibly bringing the date of the elevation of Yucatan down somewhat near that of the reported sinking of Atlantis, some eleven or twelve thousand years ago, or not far from the period that witnessed the oscillations attending the close of the glacial period.



FIELD NOTES

February 4, 1895. Las Playas, Yucatan.

We are to be off for Santo Domingo, Del Palenque this evening, but it is now nearly 9 and I am able to write at McQueen's table without fear of being disturbed by a call "to horse." We have had a good breakfast of eggs, beans, chocolate and hard bread and the two Indian packers are off with their loads.

Many pages of the note books and sketches omitted.

February 5. Waiting and on horseback on a trail from Santo Domingo to Palenque for the packers and Thompson and Armour to come up. Herman Collier is with me. Dense forests and great trees loaded with vines and dripping with rain are caught on every hand. The trail at first open is now merely a path through the vegetation which encroaches on every hand and envelops us, making it dark and lonesome. Little animal life is seen save mosquitoes.

Santo Domingo.

Santo Domingo is a unique and almost a lovely village. It consists of a few dozen thatched cottages and a stone church and a few tile houses clustered over a smooth, green hill. The trees are everywhere in bloom and the air is filled with fragrance. Away across the village and its green streets and over the forest the mountains are seen in blue patches through the white foggy clouds.

Las Playas.

February 9, 1895. The experiences of travelers are generally trivial and may not be worth writing down. In a land like this the experiences are really fresh and novel and if time hangs heavy on one's hands he may be excused for recording unimportant passing episodes. Today we rose at half past five in the hammock room of the Croix's (?) at Palenque to pack up and get our two cargadores with basket hamper and big camera off for Las Playas. I repacked many things rendered houseless in yesterday's storm in a small

soap box and with the others had everything ready for breakfast, which as usual consisted of boiled eggs and chocolate ^{at} and the little tienda. Of course, there was a hitch in gathering the horses. Meantime, I made a sketch of the Three Bells thatched house by the church. I was off first from the green village and made a pencil sketch of the fresh landscape freshened by yesterday's rains, looking over the village toward the cloud-decked mountains. Then the others came along and we hurried away over the low hills and through meadow and grand forest 25 miles to Las Playas. The journey was interesting all the way and I gazed at the forests, the great trees and vines, the bromillas and orchards and water furnishing plants, the tendrils of tree plants and ants' nests, etc. We got to Las Playas at noon and spent an hour there walking about the village photographing and saying goodbye. Then we were off two miles through the meadows to the lagoon, and here I am sitting on the sand looking down on the canoe which is to carry us to our launch 3

miles down. The recent rains have raised the water and we have to strip and wade and repack the whole outfit in crossing the stream up the meadows. But here are the two Indians with the packs and the others are near and we must get aboard. Over at the right across the shallow water are hundreds of white water birds, but here is Armour leading the pack. I must, therefore, be off. The sun shines; it is fine, and the wind blows gently. The banks are perfectly flat and soft and the horses are ridden out to the large canoe and the Indians carry the packs. The lagoon is uninteresting, bordered everywhere by tropical forest. I rode down through----- and got in position in the water on my pony to photograph the embarkation. Made three exposures. One of the Indians thinking I was holding the canoe for someone to come and get it insisted on standing in front with his hands up, but the boys finally called him off and at last I got the view of the shoving off. Then we said goodbye and got off into the boat and moved

down the lagoon. The canoe is 28 feet long, 3 feet wide, 6 feet deep, and is made of a single log of mahogany, propelled by two men with slender mahogany oars which are 12 feet long used here as poles, walking back and forth. The lagoon is nowhere more than 3 or $3\frac{1}{2}$ feet in depth.



Legend
Jan 8

A Tivoli house

MUGERES ISLAND.

The last day of 1894 we passed, late in the afternoon through a narrow and dangerous pass, past anvil rock into the harbor of Dolores, Mugeris Island. This island is nearly five miles long and quite narrow. It is formed in the main of heavily bedded tertiary limestone, which rises some 10 or 15 feet above the sea at the north point and some 60 feet at the south point. Much of the surface is covered by or consists of sand dunes over which a somewhat sparse vegetation grows. The west coast is rockbound from the harbor to the south point.

The village of Dolores faces the harbor and extends back through sheltering and luxuriant groves of palms 100 to 150 yards to the sand ridge that faces the sea on the outer side. On this one side is a beach of sand on the other the waves dark against a low rough outcrop of the jagged limestone.

A few hundred yards above the Island comes to a point and continues on a line of narrow remnants covered with vegetation above and gnarled and rough at the sides, rising 10 to 20 above water and terminating in anvil rock.

of the house
The floor/inside is not even, the door sills all flattened over rounding up a few inches. The walls are a little over two feet thick and rise five feet, which is about the top of the wooden lintels when the arches begin to rise, the stones projecting so rough-

ly as not to be plastered well over, but rather there is only a filling in of the seams or joints. The 9 or 10 slabs about 18 inches by 2 feet, 6 inches form the roof. Slope of arch same sides and end. Cement floor 8 to 10 inches thick perforated by two exploitation holes. Rough outer wall and cornice.

Mass at southeast corner 15 feet from step fallen and mostly over cliff, relation to structure real clear but probably extended to east edge of terrace. Cement made of pottery/^{clay}holding material and hence new.

EL MECO.

Jan. 2nd, 1895.

January 2nd was set apart for our first visit to the Mainland and as soon in the morning (9 o'clock) as the village official who was to accompany us got through his dispatching business, we set out in the strong little gasoline launch. The trip across, of about five miles Southwest, was rendered charming by the beautiful sea which overdid itself in its changes of light and play of colors.

We approached the land obliquely and could see but little to break the monotony of the low lying shore line. We could detect a clump of dark foliage rising above the general line of green forest long before we reached the shore. Landing at a low point a little north of the rim we skirted the shore afoot, observing two small ruins at the right, one near the point and the other back of the first sand ridge farther on. Leaving the beach and crossing the sand ridge, some 12 or 15 feet high we passed into the copses and following a slight trail for a few hundred feet we were in the midst of an interesting group of ruins.

The central structure was an imposing pile of pyramidal form placed rather low and quite fully clothed with verdure, only small portions of the walls appearing here and there. As to the other ruins, mostly much reduced, they were absolutely invisible save where approached to within a few feet, ascending the pyramid, we

were delighted with the fresh breeze blowing in from the sea and with the charming prospect, and above all the marvelous color of the sea which was banded with crystalline purples and greens, and beyond was the low Myeres Island with its stone temples at the South and almost exactly east of us. Inland we could see only the forest with now and then a palm rising out of the dense mass of verdure.

Much dilapidated and ruined and covered with shrubs and trees it was at first difficult to secure a clear notion of the ruin but we soon discovered that in general form it is a stepped pyramid supporting a ruined temple or super-structure at the top, a broad steep stairway, reaching from the east base to the terrace upon which this super-structure stands. The full height to the top of the ruined walls is about forty feet, the main ruins measuring some sixty feet from east to west and seventy-five from north to south. The ground plan loses its symmetry as a result of the varying width of the terrace and by the unsymmetrical addition at the S. E. and N. E. corners.

As shown in F Y X , denuded of the growth of vegetation, the structure as a whole is clumsy and unsatisfactory and the monotonous series of blank faced terraces is not appreciated or understood until it is recognized that the building is composite, a central original temple of commanding height and probably pleasing proportions, having been incased almost to the amount. Height was probably an important consideration and when the upper story began to show decided signs of falling apart a solid shell of masonry rising in steep narrow sloping terraces was built up to the base of the projecting cornice, fitting around its margin and permitting apparently the addition of another story.

The member X appears to be all that was left exposed of the original building, at least of the building proper, until by the recent falling away of the casing at the N.W. corner, the profile seen at X X was exposed.

I may or may not be right in surmising that the present super-structure was added at the same time with the terraced casing below, possibly the building of this to increase the height soon made it necessary to add the enforcing masonry.

Jan. 5th, 1895.

St. Michael to Cedral: - We left anchorage at St. Michael rather late in the forenoon of January 5th, for a sail down the west coast and a visit to a village in the interior. We were conducted by Pedro Perrez, the chief man of the Island and sometimes called King of Cozumel. He is a Merida man with considerable interests in these parts, an able and pleasant gentleman and a friend of Mr. Thompson's. We landed at a hut facing the water and with our loads of traps struck into the woods by a trail or road well cleared to the width of 15 or 20 feet but without drive way, the cattle path winding in and out to avoid the rough surfaced limestone which comes to the surface in a most surprising manner considering the abundance of vegetation and the necessary accumulation of humus. The soil is black and rich, however, and where it is deep enough over a sufficient space cultivation may be made eminently successful. The forest is dense and contains numerous trees of good size, but generally the growth is small. Vines and flowering creepers and shrubs are numerous and ^{our} arbor-like highway, into which the sun crept in numerous illuminated spots, was exceedingly pleasant, the vista now being far-a-way into a dark verdure covered tunnel and now opening out into bright sunshine, - quite warm enough for pedestrians.

SAN MARTIN

We passed occasional banana fields and cultivated patches, and now and then could hear the axes of wood choppers, and about eleven o'clock reached the village of San Martin. The first evi-

dence of a village was the occurrence of stone fences and we were not long in discovering that many of the stones used were rudely squared and had their origin in the ancient ruins.

The village consists of a score or more of thatched houses and huts and the people are shy but interesting, and at noon we were assembled in the shade of trees between two of the most comfortable dwellings to await lunch, which was quickly prepared by the little women of the household. We were much pleased on entering the larger hut to find a table with chairs and an excellent dinner of eggs, chicken, tortéllös, beans, sweet wine, and followed by dessert of bits of fresh sugar cane and thick coffee. Men, women and children were clean, intelligent, agreeable and apparently happy.

Photographed some children among which were a comely little girl with a parrot. In the back yard I observed one of the Spanish olive jars (oil?) of the type found in mounds in Florida.



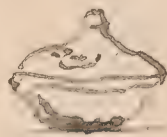
Maya Family at Chichén Itzá
Yucatan.

Some kind of / Cedar. 6

In the back yard I observed one
of the Spanish olive jars, oil, of
the type found in mounds in
Florida

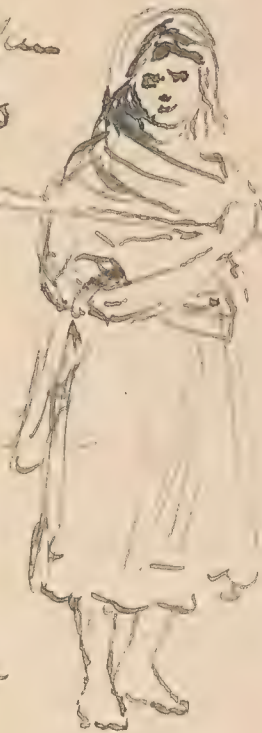


old blue checker
dish



method of hanging baskets on

The native
industry is very
on pottery



Roofs walls of palm trees well over with
as a frame work of poles ingeniously
& strongly put together. Floor of earth
clean.



Roof and walls of palmettos well bound together on a frame work of poles ingeniously and strongly put together. Floor and earth of cement.

San Martin

In the middle of the village we found an ancient ruin. A terrace some four feet high and nearly a hundred feet square is occupied by an ancient temple or house at one end and a modern church - a mere hovel with the simplest possible altar - at the other. See sketches and notes.

At another point we found a large court entered by two fine arches and again at a point one-fourth mile north of the village other like remains. There has been a considerable group extending over many acres perhaps, but the use of the stone for building had led to its almost complete destruction. Quarries recently worked were observed at various points and one of the fine arches had recently been robbed of nearly all the stone, the shape, oddly enough, being preserved by the net work of roots which still held here and there in firm embrace some of the stones and at one side a considerable mass of masonry still held its place 12 feet high. 3 miles southeast from landing and but a little north of the lagoon.

Rocks all the same, rough, pitted scored ^{as} like limestone with usual shells.

San Martin

The Father of the Village, an old withered Indian with blue blouse and hatless was "half seas over", but still was able to tell us various things about this place.

Looking south from interior phase.
South end of Muguets. Ed. Jan 15. 95.

One squared but not showing
the mortar on face of the arch



Cement

Lintels probably of
Bajate work.



St. Michaels, Cozumel

Jan. 6th, 1895.

January 6th 1895: Being Sunday, it is decided to remain at anchor and take the day easily. I went ashore at eleven and made a sketch with these palms in the foreground and the village behind - about one hours work. After lunch went off again and made a small sketch of a single cocoanut palm. Others went collecting down the shore getting many corals, shells, etc.

The rocks, which outcrop along the shore to the height of a few feet only, are all alike, gnarly surfaced limestone cut into various cavernous forms by the water. Conch shells numerous and coral very plentiful in the rocks here. Secondary inclusions perhaps in cases.

Tulum

January 7, 1895: This morning we ran over from San Michael to the famous ruin of Tulum or Toloom - a stronghold of the ancient Myas and held by them today in such a war-like and independent spirit that it was decided unsafe to attempt a landing, but the situation of the ruin is such a bold one, we deemed it worth while to sail 25 miles and back for a look at it a mile away.

The accompanying sketches will give a good idea of what we saw. The broad facade and seaward wall is without an opening of any kind, and the monotony is only broken by the outline of the dimly seen cornice moldings. The central building is squarish in outline. Natives were seen on the beach a mile or two above Tulum where there are some huts near the shore but none were

observed at the ruin although it is affirmed that a watch is kept there without interruption.

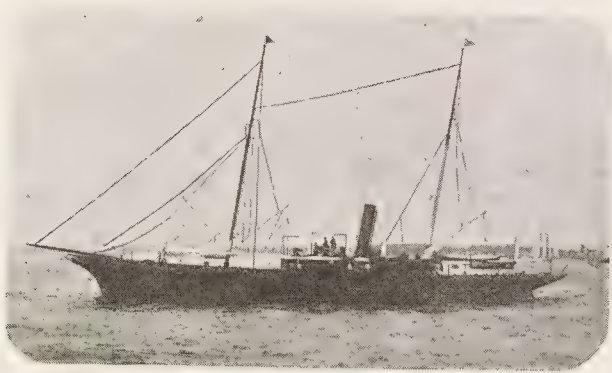
The islands and the mainland appear from the water to be covered with dense forests, save for occasional low limestone bluffs and strips of sand along the beaches, and present a most monotonous appearance; but the region is rendered extremely interesting by its archeological remains, encountered at every turn by its peculiar geological formations, its almost unstudied botany and the marvelous transparency and iridescent beauty of its island enclosed waters. Nearly two weeks were spent in cruising about from place to place, the Indian villages of Dolores, on Mugeris Island, and San Miguel, on Cozumel, being made the basis of operations. Before leaving these waters a run was made down the coast to secure a glimpse of the great ruin of Tuloom, now oc-

cupied by hostile Indians as an outpost. We were not permitted to land by our guest and adviser, Don Jose Dolores Perez of San Miguel, and contented ourselves with a distant survey of the imposing walls of the principal ruin, which resembles a fortress crowning the high bluff facing the sea.

Returning to Progreso on the 12th of January, preparations were made for a month's excursion into the interior of Yucatan. From Merida visits were made to Tikul, Uxmal, Izamal and Chichen-Itza. The visit to Uxmal was all too brief for the examination of its splendid remains, but the spot is so fever-stricken even in winter that our most experienced advisers declared the risk too great to spend even a single night there. At Izamal several massive ruins, mostly pyramidal bases of ancient temples, rise in the midst of the modern town, breaking up its monotony and affording excellent foundations for its dwellings and churches. Here the party received most acceptable hospitality at the hands of Dr. George F. Gaumer, an American resident of the village. In Chichen-Itza, the most important group of ruins in Yucatan, a week was spent and careful studies were made, ample facilities being furnished by our associate, Mr. E. H. Thompson, proprietor of the fine hacienda on which the ruined city stands.

Sailing again from Progreso on January 27th, the yacht was next anchored in the port of Laguna or Carmen, in the State of Campeche on the southern margin of the Gulf. Desiring to visit the famous ruined city of Palenque, situated sixty miles to the south in the State of Chiapas, we took a steamer that

plies between Laguna and the middle Usumacinta river, and carrying along with us the Ituna's gasoline launch we arrived the next day at the entrance to the Rio Chiquito. Here the launch was brought into use, and passing down the latter stream and into the narrow canal-like branch called Catasaha we reached at night-fall the head of launch navigation. This day's journey was rendered memorable by the occurrence of several novel incidents. Animal life is exceedingly abundant in and along all of these winding streams, and increases as the sources are approached. Turtles, alligators, lizards, fish and birds were constantly in view. Vast numbers of cranes, herons, flamingoes, cormorants, kingfishers, hawks and the like were assembled to prey upon the fish, which are very plentiful and so bold as to be troublesome to travelers by water. One variety of fish of large size, weighing in some cases as much as fifteen or twenty pounds, and called by the natives the "Sabalo," was addicted to jumping, and in the evening the water fairly boiled with them. Their spring was so powerful and at such eccentric angles that it was dangerous to remain near the sides of the boat. Members of the party were struck with such great force that we were glad of the opportunity to tie up for the night before a group of squalid Indian huts. Taking a dugout canoe from this point, the Catasaha lagoon was entered in the early morning, and a landing was made on the muddy margin of the south shore. From this point the village of Las Playas was reached by a walk of three miles over green meadows which, during the wet season, are covered by the shallow waters of the lagoon. At this pleas-



The Luma



The boat

antly situated village we were hospitably entertained by the leading citizen of the place, Don Carlos Diaz, who kindly secured the men and animals necessary for continuing our trip to the base of the mountains.

Following neglected roadways and obscure trails through dense tropical forests, and over a meadow region of great beauty from which the blue mountain ridge of Tumbala was always in view, a ride of thirty-five miles brought us to the romantic village of Santo Domingo del Palenque. On the following day a ride of eight miles to the southwest, through dense and magnificent forests and across low foot hills and fresh mountain streams, brought us to the base of the mountain slopes. Here we began at once to encounter ruined walls, roadways, bridges and temples, and after a rough, precipitous climb of half a mile up the side of the unique cascades of the Otolum we reached the great ruin called the Palace. In this place we encamped four days, making such examinations of the numerous remarkable ruins as the time would permit. On the 8th day of February rain set in, and our ride back to the village was through one of the heaviest down-pours encountered in many years of travel.

Reaching the village of Catasaha it was found that the heavy rains had flooded the meadows and it was with much difficulty and by wading the deeper channels that we reached the border of the lagoon proper. Here our friend Don Carlos had provided a canoe, and by dark we were in our launch and threading our way down the crooked branches to the Usumacinta.

With Mr. Armour at the helm we sailed all night, encountering numerous adventures both trying and amusing, and at daybreak reached the village of Palisada. Taking a cup of chocolate in the market place we were again on the way at sunrise, and passing down the Usumacinta and Palisada rivers and through the lagoon, we arrived safely on board the Ituna at Carmen, at five o'clock in the afternoon. As a storm was raging on the Gulf outside, it was decided to remain in port until it subsided, and during the stay of three days our party was most hospitably entertained by the American Vice-Consul, Mr. Herman Hahn. Receiving advices from the officers of the port that the storm was over and the passage of the bar possible, the Ituna sailed out over a charming sea, to encounter before midnight one of the severest "Northers" on record. It was the southern extension of the storm that gave New Orleans ten inches of snow.

From Vera Cruz the party, consisting of Mr. Armour, Mr. Thompson and the writer, set out by way of Puebla to Oaxaca.

From Oaxaca two of the most noted ruin-groups of Mexico were reached. By stage twenty-nine miles to the southeast on the Tehuantepec highway we reached Mitla, a marvelous city now built over by a modern Indian village, and, with the exception of a half-dozen of its greatest temples, practically destroyed. Here a week was spent with exceptional profit, and a visit was made also to the ancient quarries on the mountain side and to a fortified hill near by.

See my book on the Yucatan

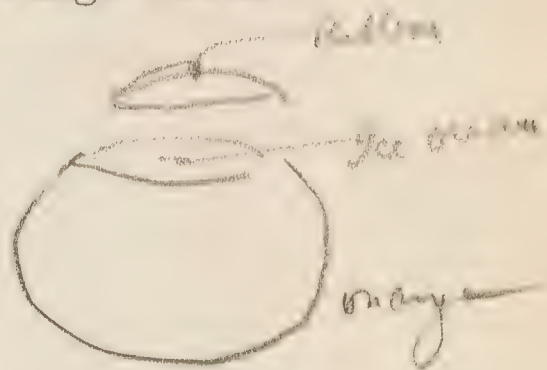
Laguna, Mexico,

January 28th, 1895.

My dear Kate:

Here we are at last in a harbor where the water is not so everlasting nervous. I have had the worst case of sea sickness yet. Of course the good sea legs I had gained in the former trips had totally left me during the volans and horse back trips and I had hardly got aboard yesterday at Progreso when I began to feel the effects and your three letters handed me after getting aboard were not half read before I had to consult Neptune and make my contribution. Millspaugh who left us there can tell you what a tossing one gets at Progreso. All hands were sorry to miss Millspaugh as he was our great and only botanist and a first class traveling companion beside. I suppose you will be sorry not to have me back also but the fates are still pointing to the westward and there is no telling where we will stop if all goes well. Laguna is at the entrance of a great lagoon in the south margin of the gulf and into it flows the Usuma-Scuita River up which we must sail to reach Polenque. We left Progreso at four o'clock yesterday in a rolling sea, but with a clear sky and it has remained clear but the wind stirred up a criss-cross movement in the waters this morning and I wished for a volans again and would have willingly changed. I am half dazed yet and my stomach

seems to be filled with something cold and heavy - like cold lead for instance. All the same I enjoyed my supper and finished it with three helps of ice cream - orange cream served in orange skins and as delicious as a warm July day can make nice ice cream.



At four today we reached the mouth of the lagoon and the waters became still. We passed in for a mile over a shallow bar where the ship stirred up mud all along, passed between two lighthouses on low tongues of land and came inside in front of a low lying Mexican Village with its red tile roofs and white walls with a two towered church and a background of palm trees. On the outskirts we can see some thatched huts. There are several boats about and a big steamer just came in moving like a ghost in the darkness. Tomorrow we land and look about. Mr. Armor went ashore to see the Consul at 7 o'clock. We shall probably be able to hitch onto a steamer with our little launch and be hawled up the lagoon and ride for about 70 miles. The water is too shallow for this yacht. There is a rumor of 30 miles horseback ride after leaving the boats.

By the way, I don't think it worth while to follow up the "petrified city" with petrified people. These things are the product of fertile imaginations.

I am glad you are feeling so well and that the cold weather agrees with you. It is too bad that Dee is confined to his bed, but I guess he will be out O.K. I have not courage tonight to illustrate this letter but may do better on the next.

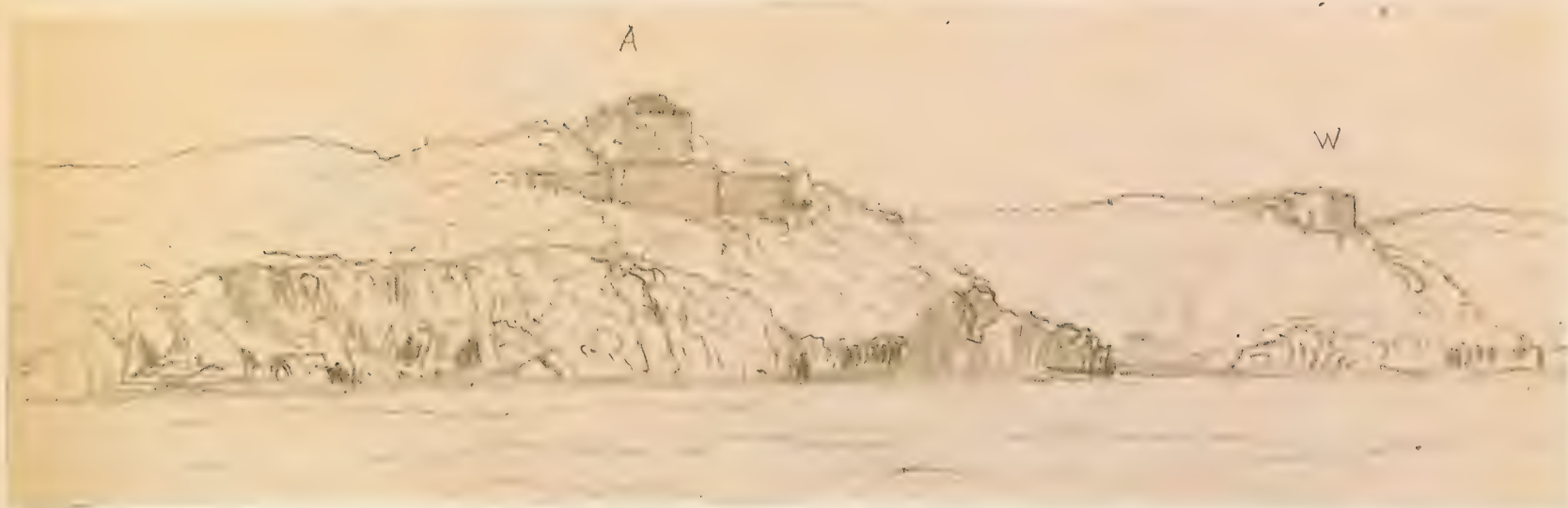
I have now to put things to order and go to bed for we may have to hop around lively in the morning to get ready to be off.

This letter may never reach you anyway as it goes on a tramp steamer tomorrow morning. There will be no opportunity to write again until our return from Polenque which will be a week or more.

As ever yours,

Will

Check O.K.



Fulham

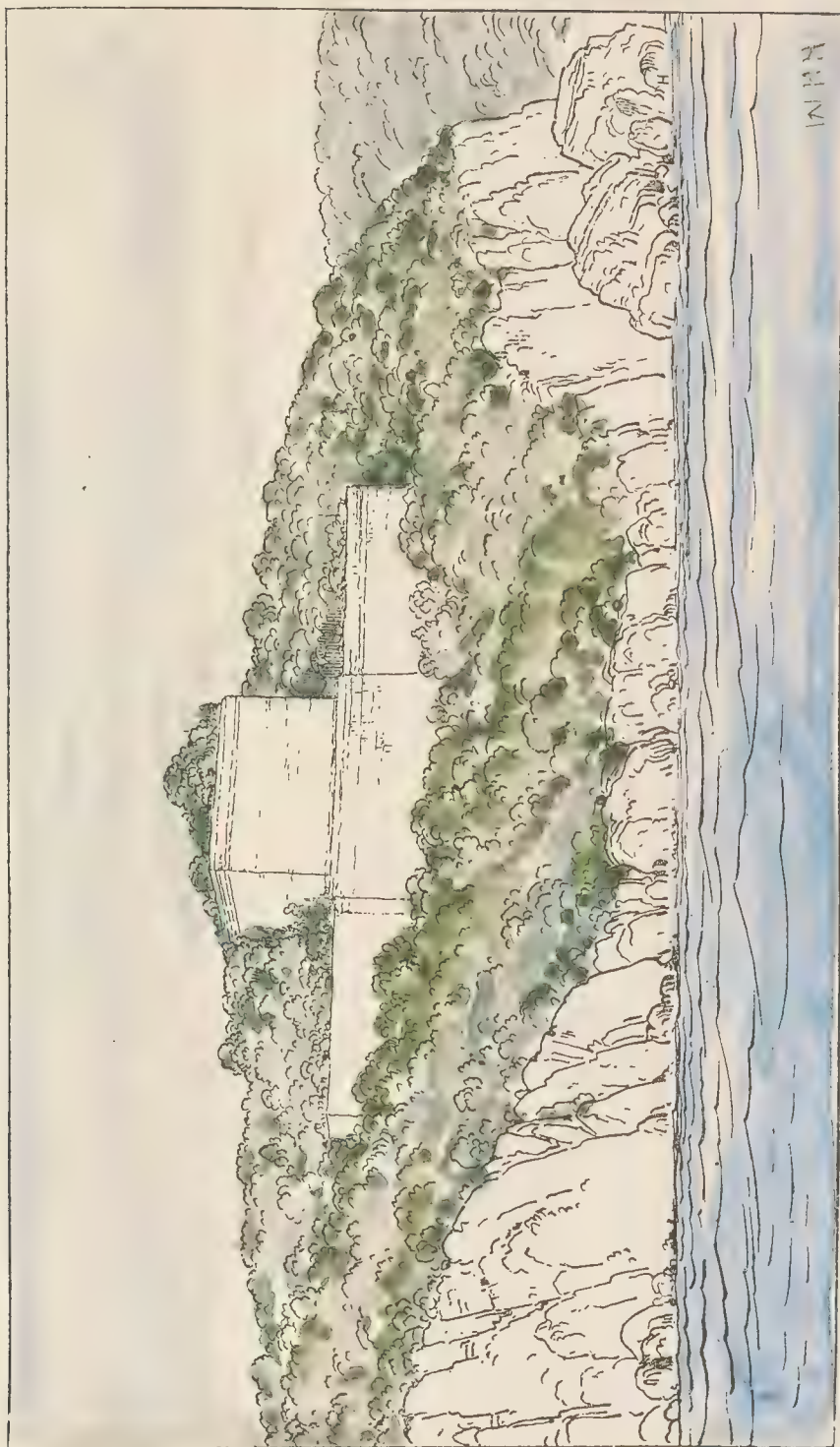


W.H.H.

To the north of the main ruins, three other ruined masses are seen rising above the trees and extending a mile or more along the bluffs - the third ruin is half way down the slope.

The sea was rough in crossing and several were sea sick. Millspaugh got off at the lower end of Cozumel to examine the lagoon.

This was half past ten - at one we were before Tulum and at three
Millspaugh
took on \wedge again and at half past five anchored in front of St.
Michael again.



Merida, Jan. 15th, 1895

My dear Kate:

I am back again from the Uxmal trip and shall be off again this afternoon on the way to Chichen Itza. I must have written you from Merida before starting away a few days ago. I don't think I had time to tell you of this interesting place and its people and I fear the task is too great now. I must first tell you what a hard trip the last was. I left here with Thompson and Marquand on Friday evening by rail for Ticul, 50 miles south. We found a dirty little hotel where we got a little supper and later a blank room in which we swing our hammocks. I was sick all day and felt that I was ready to give up and when three in the morning came and we got up to start for Uxmal I was so weak that I feared I should not be able to ride the 25 miles over terrible mountain roads in a two wheeled vehicle with bed swung on leather straps and drawn by three mules. We got a little bread and chocolate and by five were off. I soon felt better and stood the continuous and awful jolting - for the roads all over beds of solid limestone more or less covered with boulders and fragments. You would not believe that any vehicle could be hauled successfully over such country, but it was done. We sat in the slatted, padded bed with two mattresses under us and I tied a strap to the rib over my head and hung on. Ten "northers" tied in a knot cannot equal that volans for rolling and knocking about. We reached the ruins at 11 o'clock and spent four hours looking

over the vast pyramids and temples with their exquisite and extraordinary carvings. The whole country is a sort of desert now and the ruins as well as the country are covered with bushes and brambles. There is a hacienda or ranche with a picturesque house near the ruins, but it is a Uxalorial region and no white man can live there. It is so deadly that we did not dare stay over night. It is said that no babe born there ever grew up. We had a hard ride back and arrived at ten to find our room locked and the people away at a festa. We could not get in so hunted around and found a place where we got hammocks and turned in at one o'clock. At six in the morning we were up and off for Merida.

Now I must close and be off again. I have your letter enclosing letter from Agnes and Gammy.

Good bye with love

Yours ever

Will



Journal, operation
Jan 22nd 93-

My Aunt Kate

I am compelled to write in pencil as I have
only few pencils and a great deal of paper.

Consul and wife to dinner aboard, and then the next day we took, what they call breakfast down here, with them. It was at 12 M and consisted of drinks all around of abinaro - sugar brandy of native make - and five courses of meats, salads, coffee etc. The ex-consul is Mr. Hermann Hohn of New York.

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Isabel, Yucatan
Jan 22nd 95

My Dear Kate

I am compelled to write in pencil as I only have scratches at a great rate. I am just in from a terrible Volante ride of 35 miles and am too lame and tired to write you the letters you ought to have. This is the first opportunity of sending you a word since we left here over a week ago. In the morning at 6 Prof Macquart leaves here for Mexico progress & New York and it is agreed that he will go quicker than any letter posted here. I suppose if there is no weather to hinder the embarking at progress he will be in New York on the 31st. You will understand that we have been in an absolute wilderness a

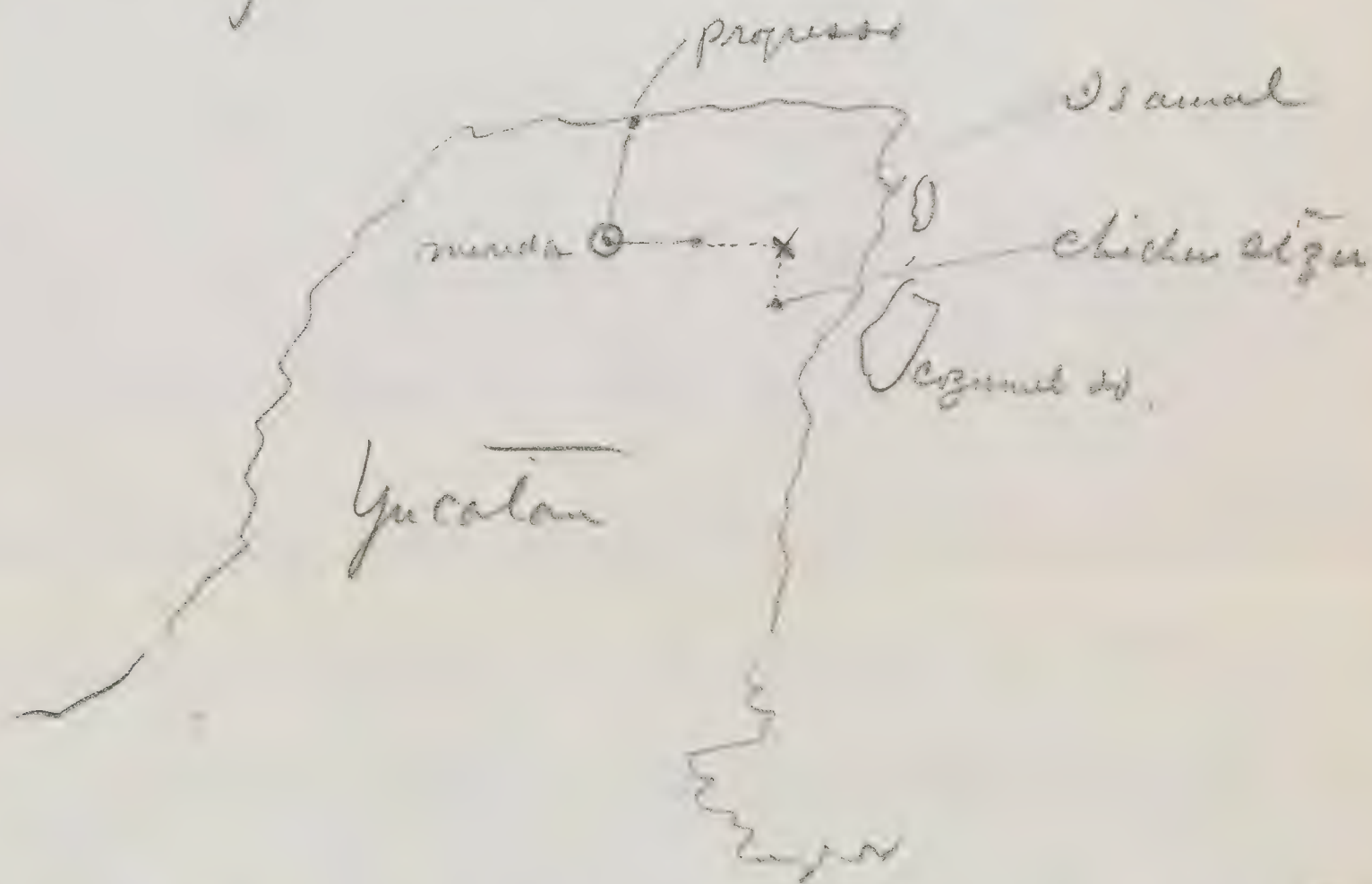
that this is the outpost of civilization, such as
it is. Iquimal is quite a village of the usual
Spanish American type and here in the
midst of it in an old house with great court &
plenty of palm shaded garden lives one American
Dr. Garner - formerly of Kansas - & his wife & two
children. Dr. Millsap & I have a room in his
house. The Dr. was here several days before and has
a nice American bed and I have a hammock
& swing in the same room. Beds of our kind
are unknown here, the hammock is in
general use and a rude cot sometimes
takes its place in hotels and with foreigners.

We got in two hours ago and have had dinner
with Garner in the Court. Almor, Margaret
and Thompson go on tomorrow at six. Dr. & I



follows the next morning. We will be in Merida
a day so I shall be able to write you again
before setting out on another trip.

I can't begin to tell you all that has
happened and of all that has been seen
since leaving here. We embarked on the



Great cart with leather springs - the three
mule volans after dark and rolled away
to the east over the rocks until about one in
the morning when we stopped at little village

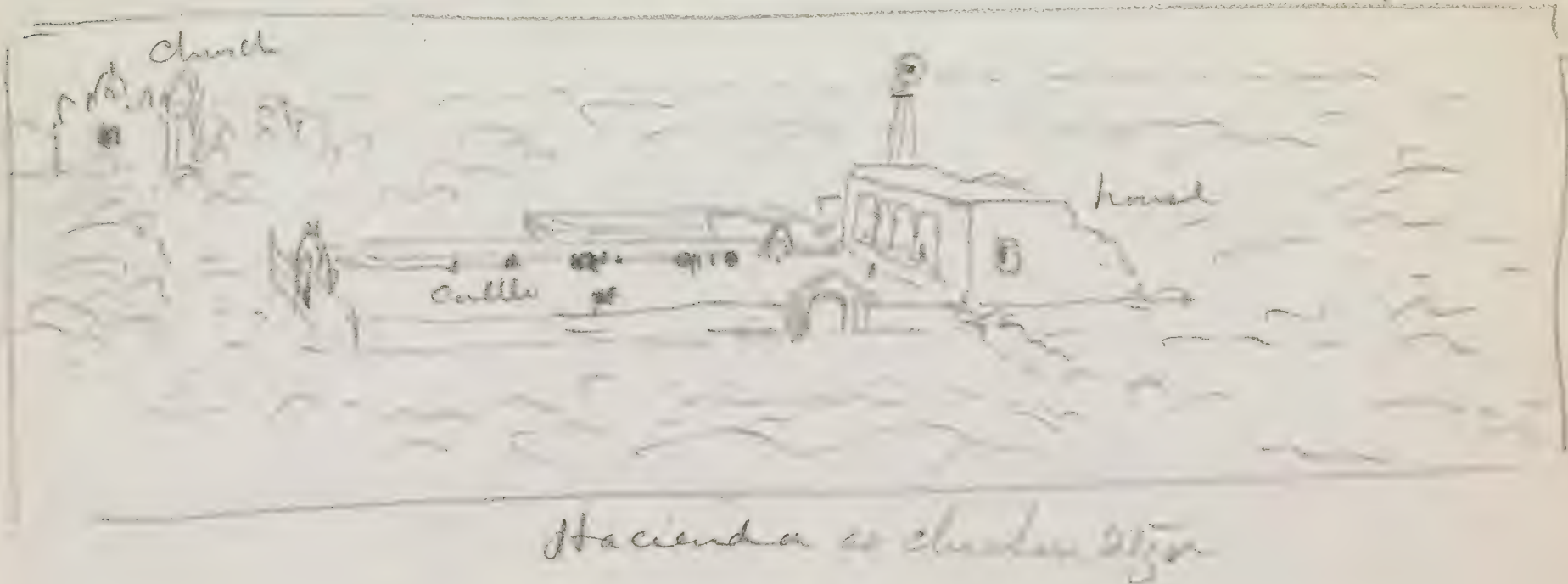
You may remember that Amor and Thompson
 now own the hacienda (28000 acres) on which
 the ruins stand. We were therefore made at
 home in the ruined mansion where there are
 a few Indians & a Frenchman to attend to the
 work, make the cows cut wool etc. They
 have covered & fixed up three or four of the
 rooms & with a windmill at work & the
 splendid cows we were comfortable enough.

The place was captured by the Indians
 40 years ago and nearly everybody was
 killed with thousands of others all along
 the frontier and the whites have never ~~went~~ ^{until}
 now ventured back here. The old church
 still stands, nearly dismantled, the ^{stone} fence & all

Got some chocolate and tried to have a nap.
 I tried to sleep inside the cart then tried
 it on the narrow side walk and by the
 time to start again I was sleepy. We jolted
 away again until morning - I holding on to a
 strap and to the ribs of the vehicle to keep
 from being shaken to pieces & the others sleep-
 ing between fells. At 9 ^{am.} ~~one~~ drew up in
 a stony little place ^{x mark} where there is a grist
 mill and a dozen thatched houses. Here we
 were photographed before leaving the carts
 and in an hour had our outfit transferred
 to the backs of mules and men. Nearly
 all day we threaded narrow rocky trails
 through the forest and late in the afternoon
 reached the great ruins of Chichen Itza.

being as left by 40 years of great

Brush and forest have overgrown every thing
and the great ruins scattered about peep
up here and there above the tangle.



Turning the other way and looking from the top of the

The greater run masses stand up out of the forest somewhat as seen in the lower sketch. It is a vast plain. The trees, now in autumn tints, forming endless billows stretching out to the horizon in every direction.

For five days I worked like a Trojan, trying to get an idea of the ancient piles but did not even see all of the big ones. I have, however, a clear idea of the work & a vast lot of notes, measurements details, sketches etc. Made three or four water color sketches which I hope will be in evidence at home some of these days.

But I can't go on now.

We came back pretty much as we went and day after tomorrow shall be in Mendota.
Good bye with love
Will

Vera Cruz, Mexico

Feb. 18, 1895

My dear Kate:

Our adventures are not over yet, and each day is furnishing more than I can describe. We have just come through a terrible gale of three days, the experiences of which it would take a graphic pen to properly describe, but we are here safe at last - thank Goodness - with the sun shining again and land in sight.

I wrote you last on our return from Palenque to Laguna. That letter goes off from here today and will reach you a day or two before this if all goes well with it in a country where mails are notably slow and uncertain. You must be tired waiting for a letter. Today was absolutely the first opportunity for posting since we left Laguna 18 days ago. It is over a month since I have had anything from you.

Well, I was about today. We came back to Laguna and spent two days there waiting for the Norther, which was on, to disappear, so we could venture out on our way to Manititlan, half way along the coast from Laguna to Vera Cruz. The two days were very pleasant being in a measure rest, although I kept my up writing and drawing at full speed. We had the American Consul and wife to dinner aboard, and then the next day we took, what they call breakfast down here, with them. It was at 12 M and consisted of drinks all around of abinaro - sugar brandy of native make - and five courses of meats, salads, coffee etc. The ex-consul is Mr. Hermann Hohn of New York.

His wife is a pleasant woman, both typical hospitable Germans, such as it is a pleasure to meet in this land of Mexicans and Manyama. So it cleared off nicely on the 15th and all agreed the weather had settled, so at 1 P.M. we were off, but over the bar with some breakers and out to the west over a shining sea - the experience was not unlike that of the trip out of Havanna - but dear me the Havanna sail out into the teeth of a "norther" was child's play by the side of the gale we met that night. I cannot describe the thrashing the winds and the waves gave our poor Ituna. We were rolled and tossed and shaken and battered and soaked until we were fairly dazed. We had set out on a twelve hours journey to Manititlan. At the end of three days we were seeking the place like lost sheep seeking a fold. I kept to my cabin the entire time seeing only Jonks the waiter to come down from the front cabin at the risk of his life (for torrents poured over the deck at every turn) to bring me what I wanted. Armour and Thomson were in the fore cabin hardly less comfortable and much worse flooded. I ate nothing and did not take off my shoes for three nights because of the water on the floors.

The third evening we ventured to approach land and finding a break in the coast came as near as possible to seek the light house of our destination. There was nothing save a wild army of breakers and a tenantless coast. When Mate Kelly came down to see me later, I amused him by telling the following story. I related that as we approached land I was at my

porthole and overheard the following conversation which took place between a man on shore and one of our sailors. The stranger, in good English, inquired "What brought you tramps down into our country anyway?" The indignant reply was that "We are no tramp ship. We are on the Yacht Ituna owned by Mr. Armour of New York, who is now aboard." "But," repeats the stranger, "what are you down here for anyway?" "For pleasure" was the reply. The strange man looked at the sky, the tossing sea and storm-rent boat and repeated under his breath "Holy Mother of Jesus!!" The sailor was about to ask the way to Manilitlan, but when he turned the stranger had disappeared. I hear that as elaborated by Kelly this story created quite a little amusement forward.

Well, later our good Captain found the so-called Harbor of Manilitlan, but it was impossible to enter and after waiting about for half a day watching the huge breakers strike the bar and send clouds of spray to Heaven, we turned our backs regretfully upon the hoped-for haven and the coveted trip thence by the ⁷⁶Febuantepic R. R. to the Pacific, and set sail for Vera Cruz. We sailed all night, the sea quieted down and as day broke we approached the city and beheld clear against the sky rising to the west the magnificent peak of Orizaba. Weak and half sick I was on deck and began the day by making a small sketch of the morning effect and notwithstanding my utterly dilapidated condition have, during the day and the writing of this letter, made two more sketches - the best of the trip. The shipping

is very picturesque and tempting and I would have to be off color indeed not to be at work. The harbor is no harbor, but anchorage on the margin of the "Norther" ridden sea. We are fixed by three anchors under the lea of an island fortress prison, and feel duly thankful to be again within reach of land. We have had many prominent visitors among others the Minister of the Interior of Mexico, brother-in-law of Pres. Diaz, and we are invited to all sorts of Janketing and to visit the families of all the great notables from the President down. Thompson went to dinner in his dress suit with the English Consul and Armour took me to a highly flavored dinner with delicious champagne (don't mention this it is of frequent occurrence) at a hotel in the city.

I am now writing at half past ten at my desk in my cabin - nearly as big as our parlor but not so high - by a lamp. My bedroom, formerly Millspaugh's, is in front of me and behind the stair and with a bedroom at the left and the bath room at the right. Two portholes at right, two portholes at left through which now are seen passing lights of boats and steamers but through which I but recently watched in vain three days for a break in the dull gray clouds. Everything is soaked and all metal is rusted, but we are pretty well dried out tonight and pretty well polished up. My scissors cant be opened, my camera refuses to work, the lens box is falling to pieces and the microscope has lost its golden glitter.

I am now writing against time because if I go off to sleep before Thompson comes back from his diplomatic dinner, I will miss the ice cream feast which the Stewart has prepared. Tomorrow we are off for Orizaba, the crest of the Sierra, the next day to Puebla and the next to Oaxaca, on the Pacific slope. Mr. Armour is arranging by telegram to meet his relatives in New Orleans on the first of March. This indicates approximately my probable return to the States and to my poor neglected wife and babes. I fear you have had a hard winter. This is the coldest winter here for years, yet half the people are in their bare feet - indeed they have no shoes. There is no chill in the air but on the streets there are the terrible odors of surface drainage - the breeders of yellow fever.

I have lost 15 or 20 pounds and shall have to quit working and thinking so hard and especially shall have to keep out of the track of "northerners."

But good bye, I have not told you half. In five minutes I shall be in bed or in the midst of a dish of ice cream.

W.H.H.

I hear Thompson hail the ship - so this last day of a week of high seas and champagne ends in a feast of ice cream. Hurray! The five minutes are not up.

Better keep this letter in the home circle.

City of Mexico,

March 1st, 1895.

My dear Kate:

I am sorry to have such despondent letters from you. Two came to hand here forwarded from Merida. Neither is dated but the stamped date of one is Jan. 25th, the other may be earlier or later. I have no doubt you are having a hard and lonely time and I wish you had left the flat in care of some one and tried your luck in Washington, since I seem destined to be away so long. Having your letters, however, I shall make all haste home. As it is a month and more since the last letter received from you was written I cannot guess what you may be doing now or whether you are better or worse off.

Dr. Millspaugh was compelled to leave the expedition and I feel almost in duty bound to stand by it to the end. The last ancient city on our program is San Juan Teotihuacan^{an} which we are to visit day after tomorrow. After that I must go to the yacht at Vera Cruz, either to sail by way of Merida, Havanna and Tampa, Florida, or come back here and take the R. R. home. If I find the latter way too costly I will go by yacht which may take a few days longer.

The last trip from which we have just returned has been a most interesting and valuable one. I was able to

CHICAGO.

I was able to study in Cambridge

detail two of the greatest cities of ancient
America and shall have a report that will
be of more than usual interest. All this

out. We need not fear - and as to taking
care of the babies - I am doing my best to
get on a good footing financially so that

I was able to study in considerable detail two of the greatest cities of ancient America and shall have a report that will be of more than usual interest. All this

exploration is too hurried though and I have
kept up the steadiest and fastest gait of
my life. I am in good shape though -
a little thin - but not the least played
out. You need not fear - and as to taking
care of the babes - I am doing my best to
get on a good footing financially so that
they may not have to suffer. You have your
very arduous duties and perform them with
the greatest credit, but you ought not
to think that what I am doing is not
what I regard as the very best, not for
myself but for you & them.

I have hardly the heart to try & tell
you of the events of the trip since leaving
Veracruz, as you may not care anything

about it but in hope that you are feeling better than when you last wrote I will outline the journey.

I think I must have told you how we left the Ituma in a gale and got successfully to shore in our little launch. Vera Cruz is the vilest hole under the sun. I used to think Naples was unbearable but I wonder that men can live in the foul air and pestilential filth that prevails everywhere ^{here}. Thompson and I were glad to take a train at once for the mountains. Armer. Staid over night to await telegrams and letters. We soon left the city and sand dunes of the coast and in two hours reached the foothills where fresh streams and cascades greeted us again and a little after night we landed in the most picturesque village of Orizaba, situated just under



stream runs through the town passing over mill
wheels, under great stone arched bridges and down
between such picturesque walls and houses and
churches that I longed to stay in the place. But
we had to be off at 9 in the morning and took
the train - joined by Arner and a party from Mexico
consisting of some gay members of the Crittenton family,
the general being Consul general at Mexico - were
carried up the valleys and along high mountain
sides and fearful slopes to the summit of the
great plateau of Mexico 7000 feet above the sea.

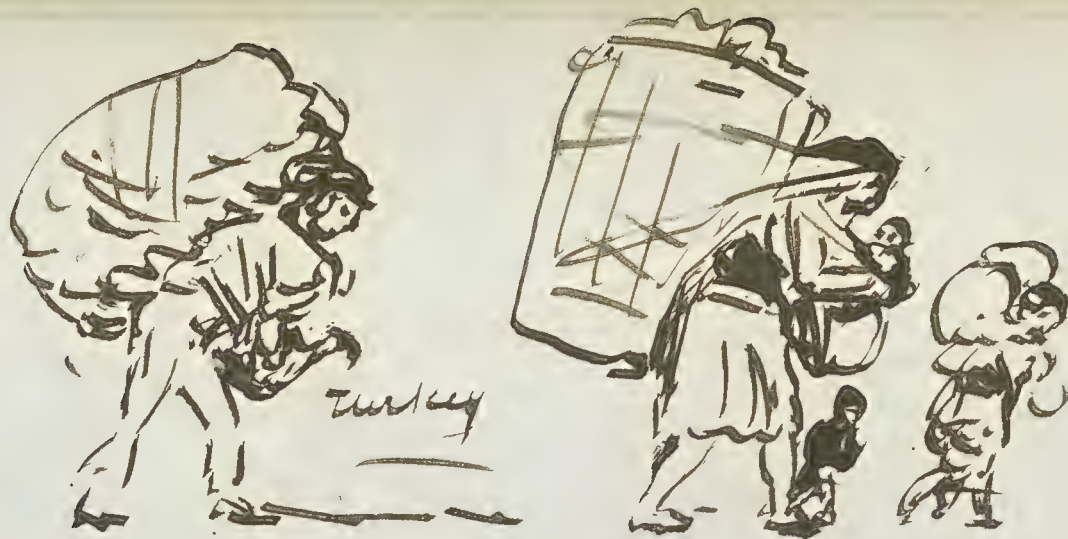
All at once the country changed and from a land
scape of rich foliage and mountains we entered one
of bleak plains surrounded by mountains with the
air filled with terrible dust which made us
cough and look like blackbirds. At six
we reached the city of Puebla got supper, went
to bed, got up at five and froze an hour waiting for

through a wonderful country, having on the east
against the rising sun lines of mountains that
took wonderful colors and on the west beyond
the plain the two grandest mountains in North
America, Popocatepetl and Iztaccihuatl with the
changing glow and colors of the morning on
their snow covered faces. Then we passed
through deserts and over plantation covered
plains with wonderful old churches everywhere.

This part of Mexico was formerly priest-ridden
and the people were made poor building churches.

There are several in each little village, contrasting
in their size and beauty with the levels of the
inhabitants. Often as many as six were in
sight at once and they are all gems in the
landscape with their pink and yellow domes and
white towers - all bearing traces of age sufficient

into Cañons and followed the winding torrents
between grand cliffs and lofty mountains where
giant cactuses are the only healthy looking plants
of the vegetable world, and finally came
out at sunset on the summit of the con-
tinental divide. From this point we de-
scended into the fertile mountain-bordered
Valley of Oaxaca and at 730 landed in a
delightful little French hotel which is like a
fresh fountain in a desert of barbarism. There
are more poor, dirty and picturesque people in
this remote city - shut out until now from
the world - than I ever saw before in any
country. It is all so like a new world that
one can take even the poverty and filth
without nausea. I can't describe the markets
where thousands of Indians sell the strange
products of the country, coming in afoot, barefooted,



10 miles into
town to sell 14 cen
worth of charcoal
and one turkey
and out again the
same day

trout on donkeys when they can afford
it piled up two or three deep and always
with their babies and others in or carts the



So donkey owners
go to market.

beat anything for picturesqueness I ever saw
I had no time to draw them as they
came in through clouds of dust in endless
trains and I could not draw them if I
had the time for oxen beat me worse





well-to-do
folks going to
market.

for an artist - but I never did draw
a cow. Well I was off early in the morning
to visit a mountain covered with ruins and
spent the day climbing and sketching and mapping
and picking up specimens and keeping my
revolver ready for robbers. Got in late and
next morning with arms and Thompson set
out in a fine mule back for Mitha 30
miles to the south east. So we travelled all
day through dust and crowds of market going
natives. stopped at noon to look at a big tree
104 feet in circumference and got to Mitha in
time to have a preliminary glance at the most curious

[Faint, illegible handwritten text]

and I spent four days there working hard
while Arner went back to Mexico to have
a good time with the merry-makers of the
carnival which is now on there.

I flatter myself that I have a report
well worth publishing on these ruins and also
another on a great group of ruins visited on
our return to Oaxaca.

Well we got back to Oaxaca in good shape
made visits to collections and got together a
lot of the delightful native pottery for the museum
and came on to Mexico as fast as the train
would carry us. I have nearly worn out all
my clothes and am buying new. We were to
go to a bull fight this afternoon but it was stopped
because the bulls were not up to the mark as the
people here have a way of tearing down the whole
bull ring if the bulls fail to make a game fight.

early in Mexico - Thompson & I go out to San
Juan Teotihuacan to see the great ruins there
the next day we finish buying & museum
seeing here and Wednesday go down to
Ora Cruz to take the yacht. Armer said
to day that he would probably go back by
way of New Orleans. If he does the
journey will be short

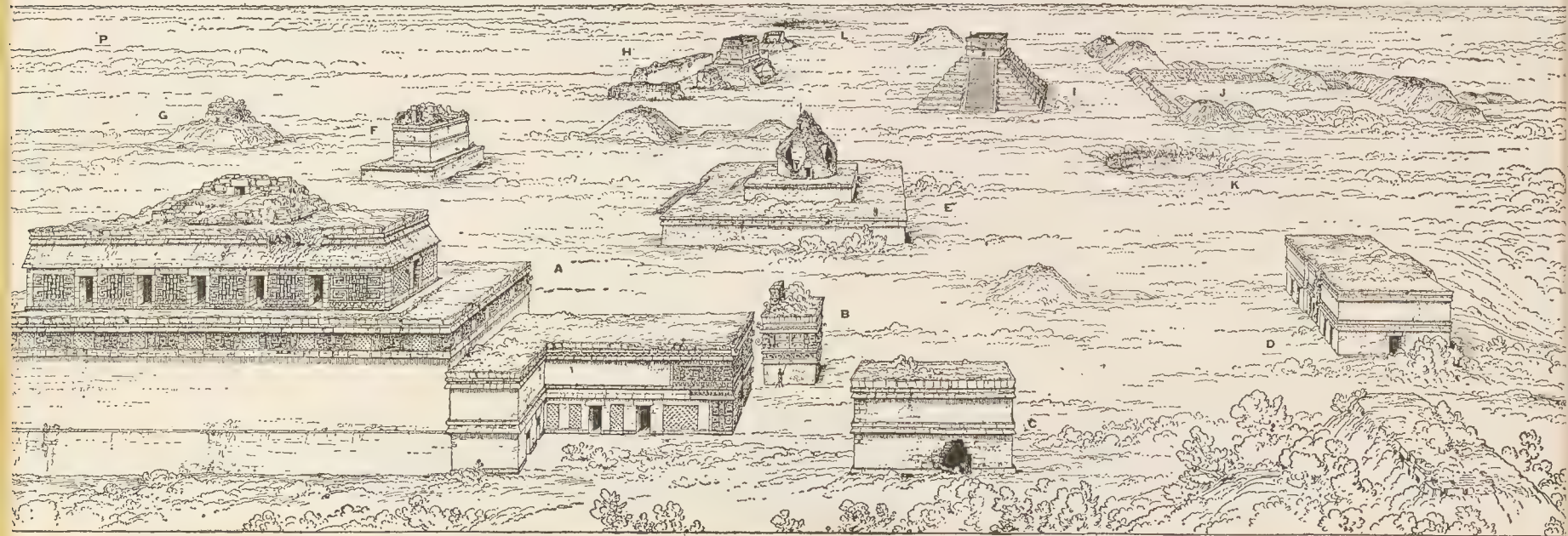
well now cheer up. You shall yourself
have some of these good times traveling
yet of all for well. If we can only
make it I am determined to see Spain
Italy and France 1900.

Spend all the money you need and
go to Washington or any where to be
comfortable. With love Yrs
W. H. Holmes



John W. and family

PANORAMA OF CHICHEN-ITZA, YUCATAN.



My analysis of the Corbel should be
shown here

see my Chicago volume, page 119



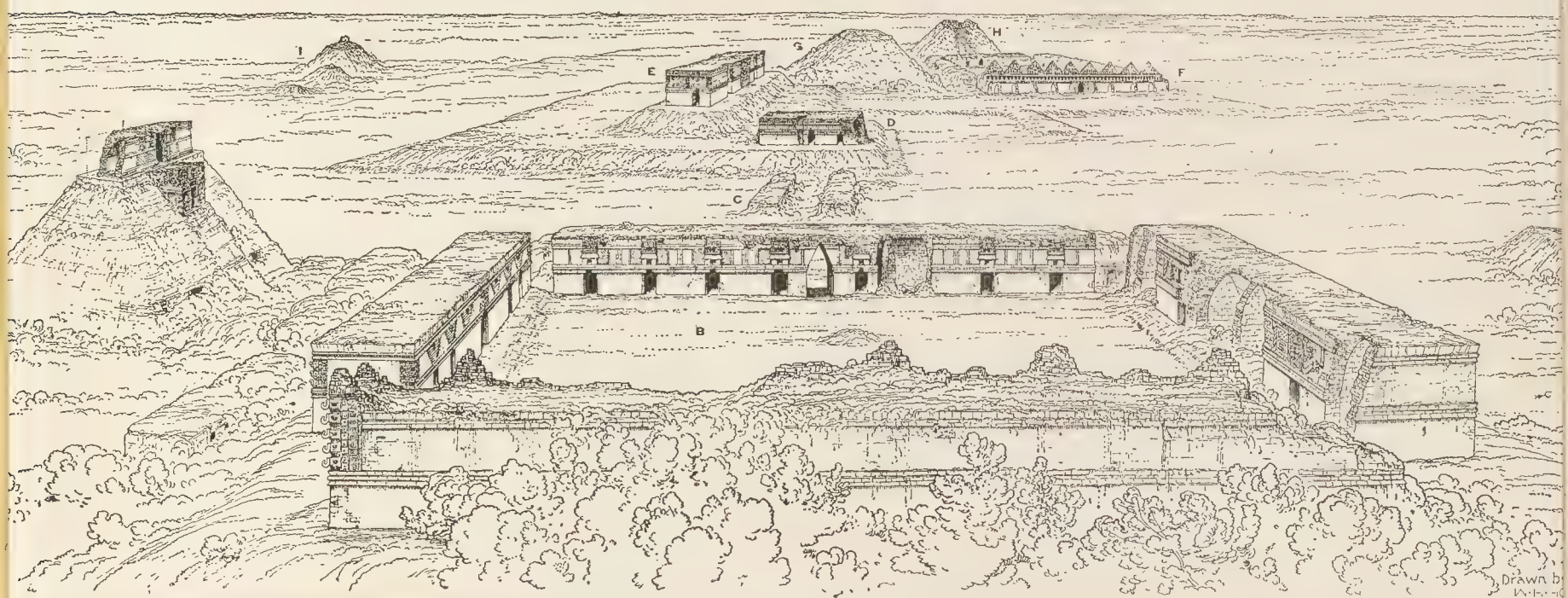
TEMPLE OF THE TIGERS AND EL CASTILLO.



GIANT STUCCO HEAD ON SIDE OF PYRAMID, IZAMAL.

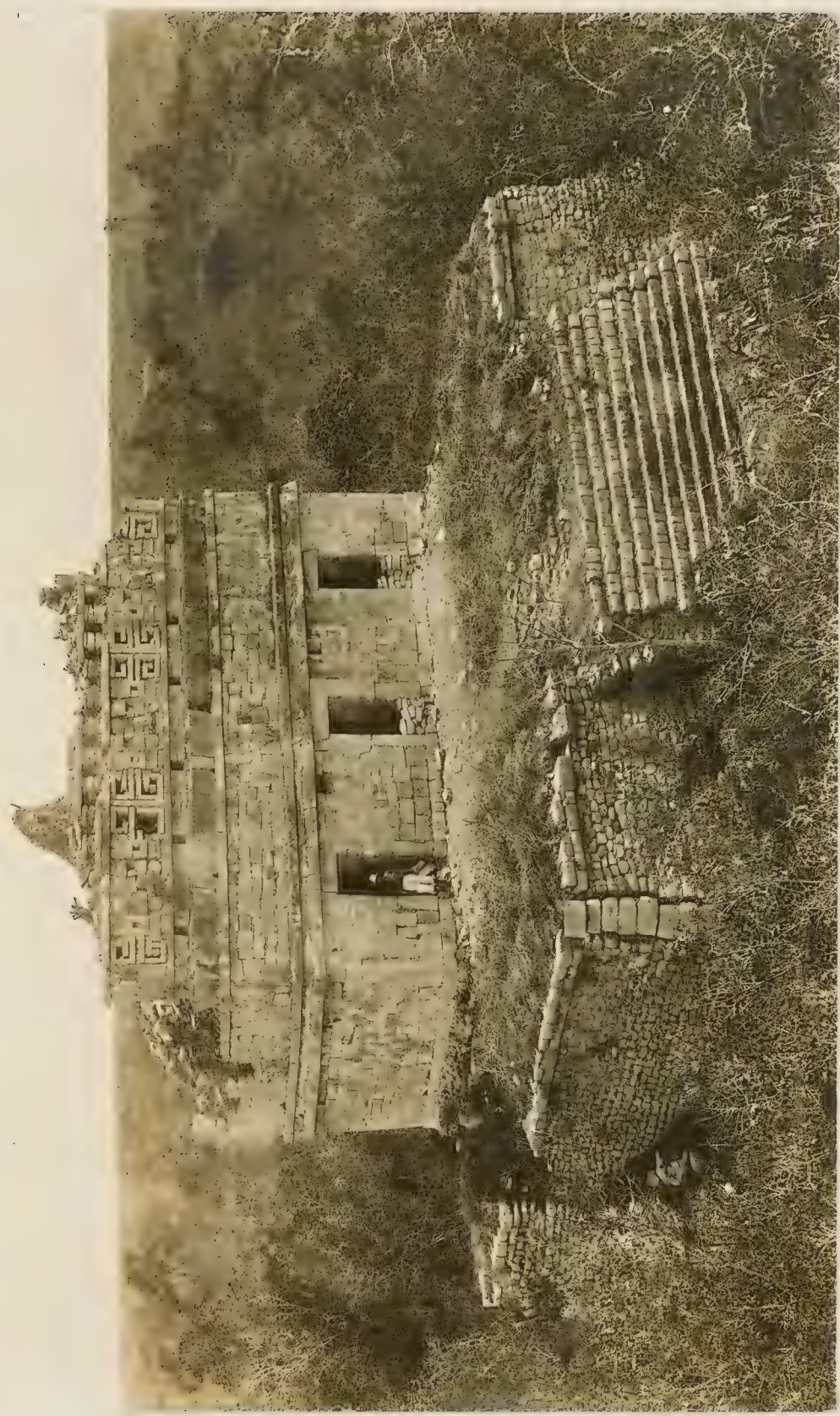


PANORAMA OF RUINS AT UXMAL, YUCATAN.



Drawn by
W. H. C.





THE "PALACE"
MITLA

MODEL OF ONE OF THE PRINCIPAL BUILDINGS IN THE
PREHISTORIC CITY OF MITLA, STATE OF OAXA-
CA, MEXICO.

(Model 1/18 actual size).

The ruined city of Mitla is situated thirty miles southeast of the city of Oaxaca, Mexico, and includes the remains of nearly a score of stone structures of unique architectural style. Its builders are popularly believed to have been the ancestors of one of the historic tribes of Southern Mexico, the Zapotecs or Mixtecs.

The model represents the best preserved of the buildings, being one of three facing a court 123 feet square. It stands today practically complete, save that the roof is gone. The platform, on which the building stands, was from seven to ten feet in height, and was faced with moldings of perfectly fitted cut stones inclosing panels decorated with geometric mosaics. It was ascended by means of a stone stairway of nine steps bordered by projecting piers.

The building, which was probably devoted to sacred purposes, consists of an oblong chamber 128 feet in length and 30 feet in width, and a communicating back building 60 feet square, comprising a square open court and four enclosing chambers. The walls are from four to five feet thick, and are preserved to nearly their full height, (16 feet). The facing is of beautifully cut and fitted stone with elaborate and tasteful moldings and panelings, the latter ornamented with geometric mosaic fret-work formed of small cut stones set in the plaster bedding of the wall.

Vera Cruz we traveled by rail to various points in Mexico visiting no end of ruins, but I shall stop only to speak of one group in the State of Oaxaca, Southern Mexico. At Mitla we are in the country of the Zapotecs and encounter novel phases of art. The buildings have somewhat similar characteristics with those of the Maya provinces and owe their erection to nearly identical conditions and motives but their ground plan is distinctive and the details of elevation and construction are peculiar to the region. The long narrow buildings are all arranged in quadrangles, sometimes joined at the corners giving a closed court, but generally set apart several feet leaving free access to the court. No form of arch was used, the roofs having been supported by beams of wood, now entirely gone, leaving the houses roofless, but the walls in many cases stand to their full height and are remarkable specimens of embellished masonry. They are faced inside and out with accurately hewn stones *decorated* decorated with numerous panels of fretwork, not embodying life *altern facades* forms as in the sculptured facades of Yucatan, but consisting of

purely geometric devices. These are worked out in a kind of mosaic, by setting into the back^{ing} of mortar a multitude of accurately cut stones placed in and out in such a way as to form patterns in relief. I estimate that in one group of buildings upwards of 100,000 pieces of cut stone, measuring only a few inches in length and breadth and of extremely varied shape, have been used. The stones used in the walls generally are of medium size and the lintels, door jambs and certain beam-stones and columns are very large, the lintels measuring in many cases as much as 20 feet in length and from two to four feet in the other dimensions. Sculptures, in the ordinary senses, was practically unknown to these builders. The marvel of all this stone cutting is that metal was practically unknown to these peoples and we are bound to assume that the vast work was accomplished with stone tools. I was fortunate in securing much evidence upon this point and concluded that there is no specific distinction between the work done at Mitla and that of the Indian soapstone workers of Virginia, Pennsylvania and Connecticut. That stone tools were extensively if not exclusively used and that the

picks, axes, sledges and hammerstones used were of forms familiar to all our aborigines.

Picks

The nearest evidence of work so far as observed is at the base of the lower bluff on the north side of the valley two miles east of the ruins. From this point transportation was comparatively easy as the way was down very gentle slopes cut by occasional arroyos and smaller gulleys which could be ^{passed} ~~passed~~ without great difficulty. But the main quarries are found on the upper slopes of the range to the north nearly a thousand feet above the City and five or six miles away. The feats of engineering necessary to transport masses of stone many tons in weight down a thousand feet of precipitous mountain face, accomplished by these stone age quarrymen, would be regarded as important undertakings even by our enterprising engineers of today. Their means and appliances were no doubt extremely simple and great time must have been consumed in the work. Seeing the vast results accomplished we are compelled to assume the employment of large numbers of men directed by a despotic power not limited to the life of an individual but continued

[illegible]

from generation to generation without change of impulse or intention. Taking a guide and horses we climbed the mountain to the north, and just before reaching the summit, nearly a thousand feet above the village and some six miles away, we encountered the quarry. About it were several large blocks removed from their beds while others had been partly cut out or only begun. *here was the work as described* The work had been undertaken on the sloping surface of a solid mass of the rhyolite. Channels had been cut the full length of the blocks desired and to the proper depth and likewise across the ends. When these were widened sufficiently, undercutting was begun and carried on until the mass was severed and could be broken off by the aid of levers or wedges of wood, ~~probably aided by water.~~ After the removal of one block the amount of cutting for each stone was reduced somewhat, as one side only instead of two had to be channeled. The channels observed were about a foot wide and the depth was about three feet *examples* in the deepest. The larger blocks, among the half dozen wholly removed and set upon edge, are 12 feet or more in length by five or six wide and from two and a half to three feet thick. *if these are the same*

The following is a list of the names of the persons who were present at the meeting held on the 1st day of January 1900. The names are given in the order in which they were called. The names of the persons who were present at the meeting held on the 1st day of January 1900 are as follows:

The following is a list of the names of the persons who were present at the meeting held on the 1st day of January 1900. The names are given in the order in which they were called. The names of the persons who were present at the meeting held on the 1st day of January 1900 are as follows:

Such a stone would weigh perhaps ten tons. The intention of the quarrymen was probably not to carry these blocks directly down the mountain, but to take some roundabout way that would give reasonably gentle slopes. The most striking illustration is that furnished by a partially hewn block of rhyolite lying at the base of a massive overhanging wall two miles east of the ruins. Originally the mass was about 25 feet long and probably averaged five or six feet wide and high though far from regular in shape. The work of shaping and dividing this stone into parts was well under way when the final summons came to close the work, ^{and} ~~perhaps~~ ^{perhaps} to appear for a final struggle ^{with the} ~~against~~ ^{of} invaders ~~into~~ their retired and beautiful valley. The pick marks are everywhere distinctly seen and the heavy picks ~~which~~ ~~fell from the hands of the workmen~~ lie all around the massive block, ~~with~~ their bruised points and flaked margins almost as fresh as if ~~shaped~~ and used but a year ago.

The progress and processes of dressing are readily observed. The upper surface was first leveled off and the size of the block determined upon; then the work of hewing the sides and

The first thing I noticed when I stepped out of the car was the heat. It was a sticky, oppressive heat that seemed to wrap around me like a heavy blanket. The sun was high in the sky, and the air was thick with humidity. I had heard that the weather in the South was terrible, but I didn't realize how intense it would be.

...to close the work, ... to appear for a trial ...

tick marks are everywhere distinctly seen and the heavy black

11. What is the purpose of the study?

* This report is partially correct and should be revised accordingly.

• *John 7:37* "In the last hour, I will give to him who thirsts the living water."

— Willson and his party to accompany him and

ends began. The top was outlined all around and then the vertical cutting followed. ~~On the left in Fig.~~ ~~the farther end is squar-~~
~~ed down to the ground but the larger mass at the front is not yet~~
~~half blocked out, large projections below remaining to be removed.~~

All over these surfaces are seen the evidences of tedious labor;
here a workman has pecked away until a broad shallow channel ^{was} deep-
ened to the proper plane and carried down toward the base. Next
this is another ^{area} ~~era~~ of cutting and beyond another and still another
as if many workmen had labored side by side leaving low ridges be-
tween the ~~areas~~ covered by each. Though lying here open to the
weather for more than four hundred years the pick marks are clearly
visible and even the direction of the stroke and the width and
nature of the blunt point of the pick can be observed.

Turning from this most interesting and instructive illus-
tration of the nature of the work done by the ancient stone cutters
I sought traces of the tools employed and was repaid by numerous
finds. Scattered all around were battered stones, ^{rude} ~~ruined~~ picks,
~~made by flaking the ends of oblong masses, and boulders, and hammer-~~

[illegible]

stones with which the picks were sharpened. These tools were undoubtedly used in the stone cutting operations, as there had apparently been no other work conducted in the vicinity ^{and} were made of roundish masses or of water-worn boulders of harder varieties of lava not found on the site but brought from the valley below or from more distant localities.

A lesson of the ruins. One of the great lessons to be learned from these remarkable remains relates to the raison d'etre of their existence. Contemplating the multitude of temples we realize the vast influence superstition has had upon the minds and achievements of the race. Here we behold the spectacle of a people not yet high in the scale of culture, having reached only the upper stages of barbarism, surpassing themselves, expanding far beyond their normal grade of culture in one particular direction - the art that relates to and feeds upon superstition. These people were probably content to live and rear their families in hovels and to transact the affairs of the community and state in almost humble halls, and the art of architecture would have slumbered for ages had it not

been for the unwonted degree of energy awakened by strange conception of the demands of religion. Under the influences of these impulses vast feats of engineering were accomplished and far reaching results in art were attained. In four hundred years of decay and despoilation nearly every trace of structures, save those related to religion, have disappeared from the face of the land, but these colossal buildings defy time and will for generations continue to puzzle and astound the world.

of the demands of religion. Under the influence of these in-

fluences vast tests of engineering were accomplished and the results

results in art were attained. In four hundred years of society and

deeply seated habits every trace of superstition, every trace of religion

is extinct, and the scientific spirit has taken its place, and the

original buildings only time and will for generations continue to

stand and adorn the world.

-2-

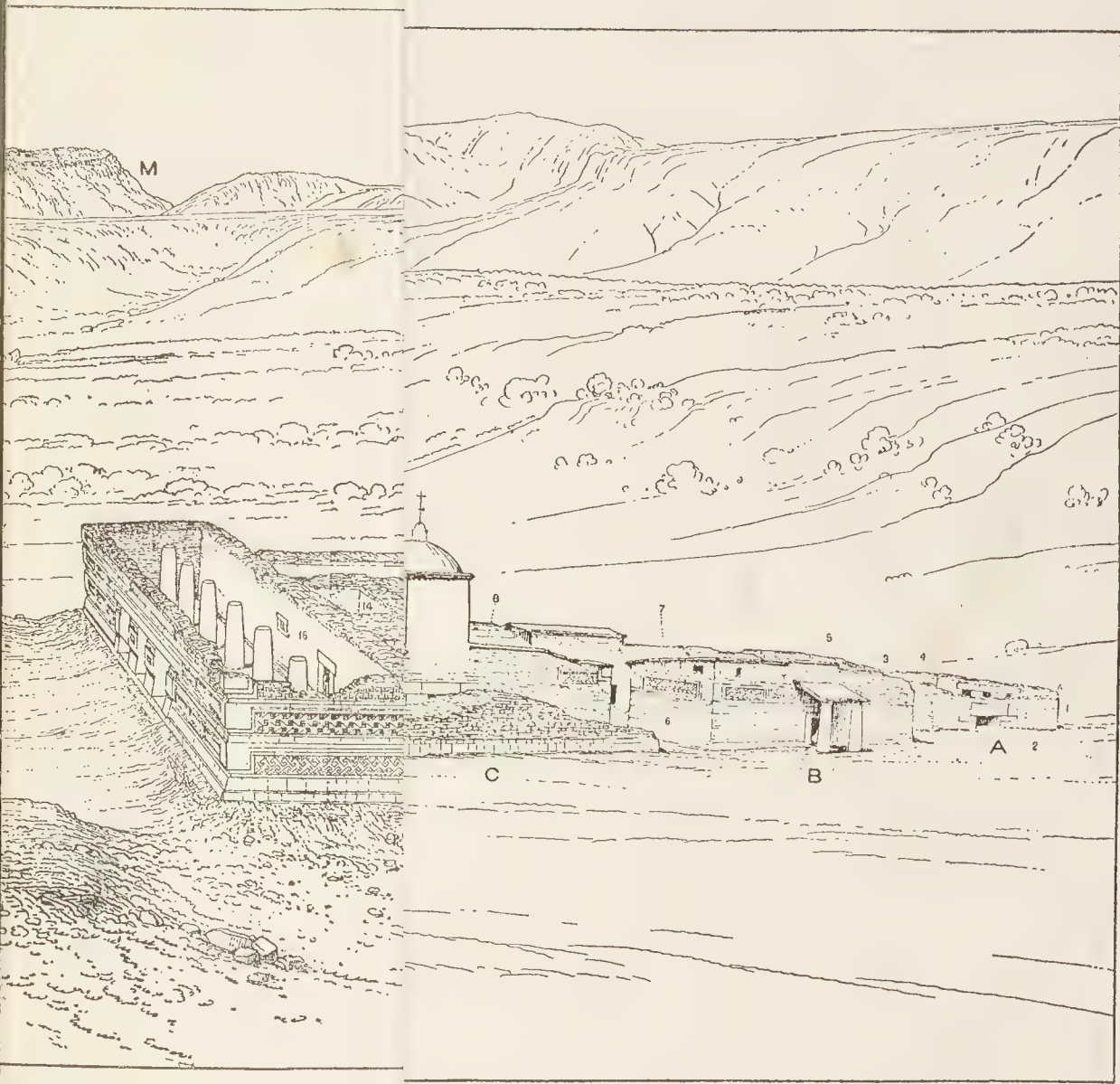
consists of ^{a hall} ~~an oblong~~ chamber 128 feet in length and 30 feet in width, and a communicating back building 60 feet square, comprising a square open court and four enclosing chambers. The walls are from four to five feet thick, and are preserved to nearly their full height, (16 feet). The facing is of beautifully cut and fitted stone with elaborate and tasteful moldings and panelings, the latter ornamented with geometric mosaic fretwork formed of small cut stones set in the ^{rubble filling} ~~plaster~~ bedding of the wall.

The inside walls of the court and the upper three-fourths of the walls of the four chambers are finished in the same manner, as may be seen by ascending the steps placed at the side of the model. The roof has entirely disappeared, but evidence remains to indicate that it was flat, and supported by wooden beams covered with cement. The roof beams of the large front chamber were supported in the middle by a row of six stone columns eleven feet high, which still stand. Details of construction are indicated in the model, the roof being partly restored for the purpose. Traces of color re-

Antiquities of Mexico
The "Governors House", Uxmal, Yucatan
Scale 1/24

Antiquities of Mexico
The "palace", Mitla Oaxaca
Scale 1/11

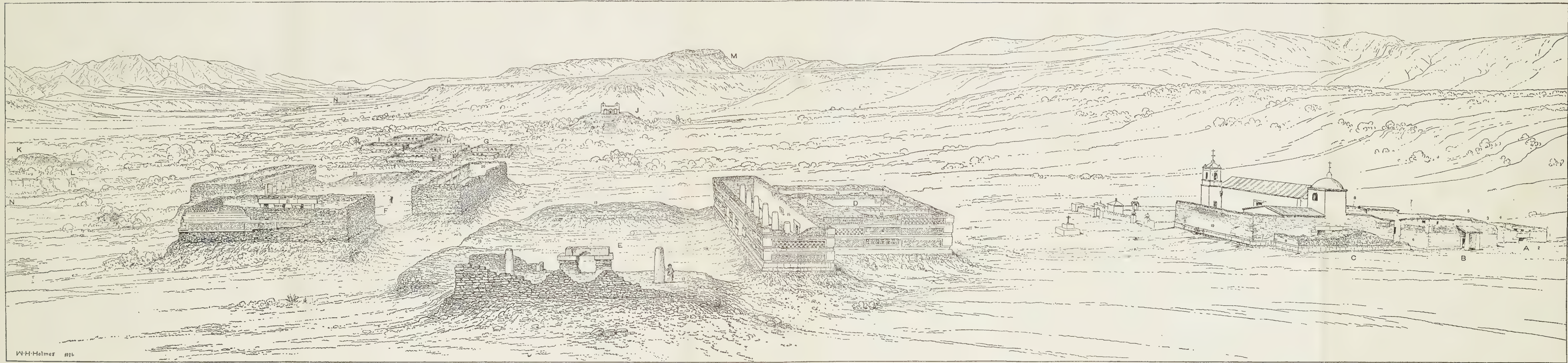
Planche 19.



panorama des Ruines de Mitla,

pe III. Palais près de l'arroyo.
pe IV. La grande Pyramide du

Iny pauc a



Panorama des Ruines de *Mitla*, d'après Holmes.

A. B. C. Groupe I. du presbytère.
D. E. F. Groupe II. Palais des colonnes et la cour aux souterrains.

G. H. I. Groupe III. Palais près de l'erroyo.
J. Groupe IV. La grande Pyramide du Mont Calvaire.

K. L. Groupe V. Pyramides de la rive gauche du Rio Mitla.
M. Forteresse couronnant la chaîne de montagnes occidentale.

du plan sur le terrain

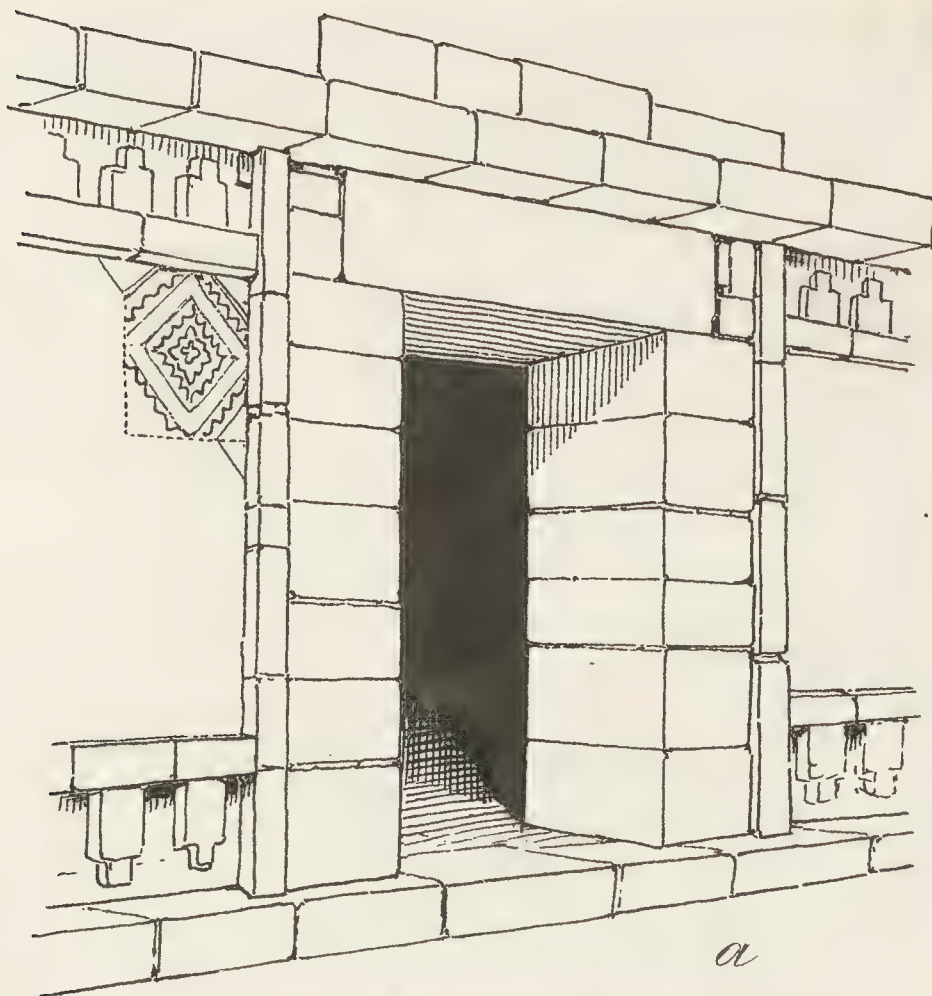
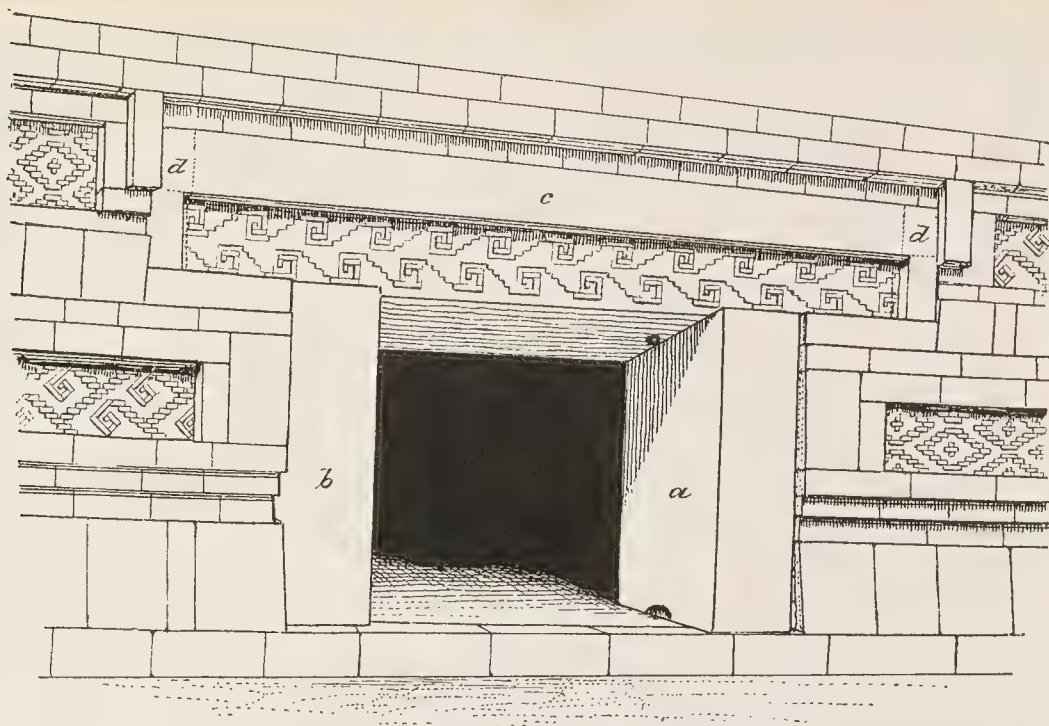


Fig. 1. Stone doorway.

The wood of the

Boards

Chairs



72-1-1

By the way, the wood of the

Boards is of the same kind as the



"Temple of the Wall Panels"
Chicnen Itza, Yucatan.

1927 - 1929

Dear Doctor Holmes:

We are very amateurish archaeologists but nobody ever got more of a thrill than we did in excavating this little Temple.

Very few have seen it as it was not uncovered till 1927.

Our best wishes for your health and happiness

Sincerely,

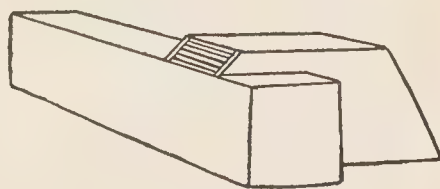
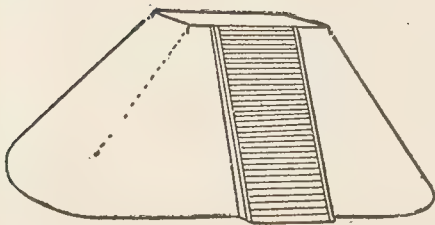
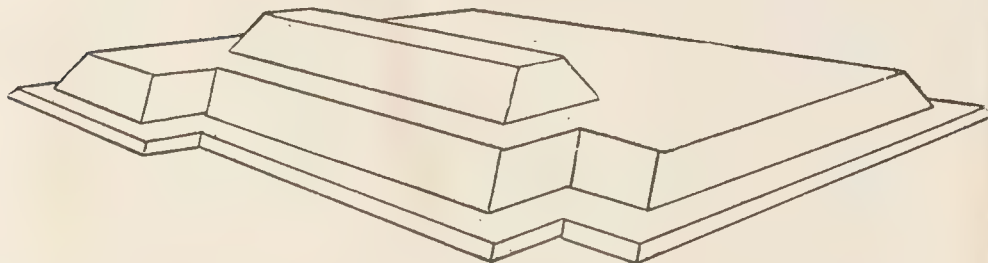
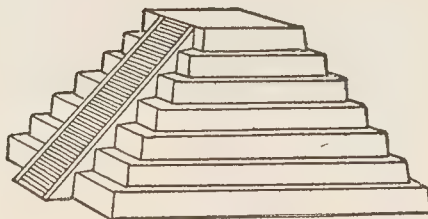
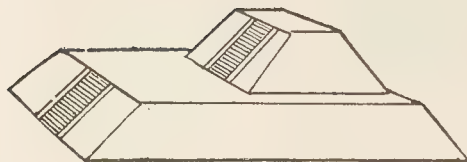
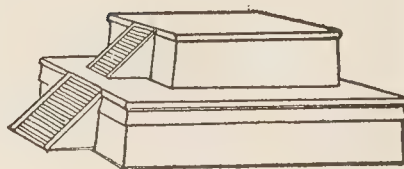
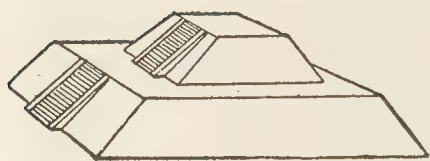
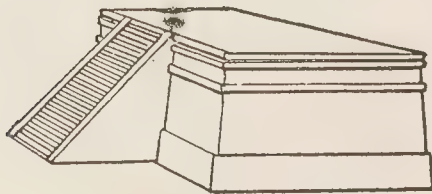
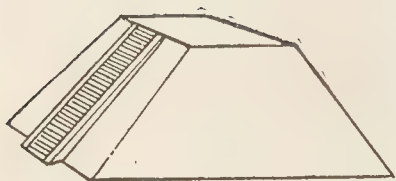
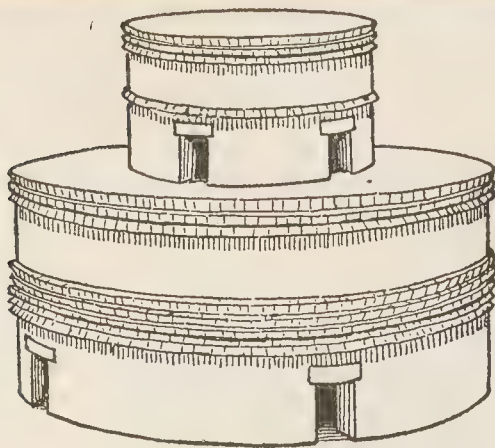
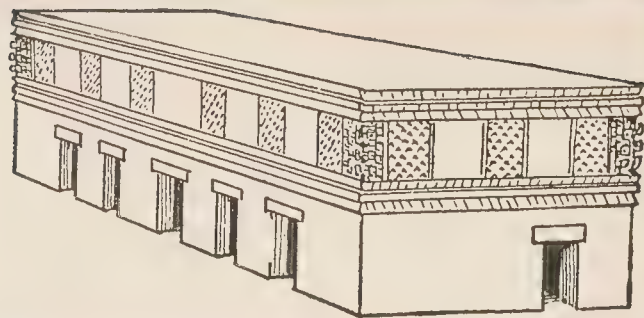
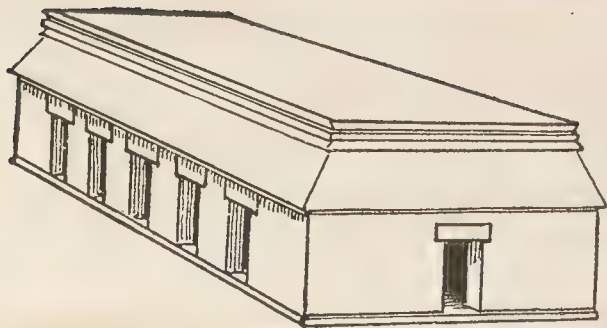
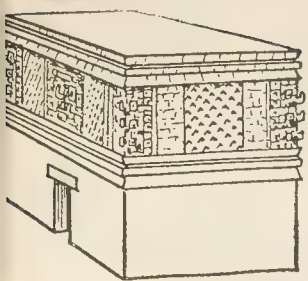
Francis & Elizabeth Proctor



169



A CHARACTERISTIC MAYA VAULTED CHAMBER.



EXAMPLES OF MAYA BUILDINGS—BASES AND SUPERSTRUCTURES.



Chetou
Temples de la pyramide de los Dioses

Other Tablet copy

PALENQUE

1

ANCIENT MEXICAN ARCHITECTURE TEMPLE OF THE CROSS

IN THE PREHISTORIC CITY OF PALENQUE, STATE OF CHIAPAS, MEXICO.

(Scale 1/24)

The ruined city of Palenque is situated in the State of Chiapas, southern Mexico, and furnishes remarkable examples of the architectural achievements of the prehistoric aborigines. It was deserted at the time of the conquest, so that the period of its construction and occupation is not known, but all are agreed that it belonged to the Maya race which still occupies the general region.

(omitted)

This model represents the temple of the Cross, one of the numerous imposing structures of the city. The pyramid on which it stands is about 250 by 175 feet at the base and 80 feet in height, but is so covered with forest and buried by debris that details of its construction are not well known.

The temple here shown is solidly built of rubble masonry, faced in part with hewn stone and in part with stucco. It is 48 feet long

by 31 feet wide, and including the remarkable roof crest, is 42 feet in height. The facade is partly broken down, but in the model is restored in accordance with the style and construction of other better preserved and nearly identical structures in the same group. The main walls are plain and the facade is pierced by three doorways separated by massive pillars decorated with stucco figures in relief. These doorways were doubtless spanned by wooden lintels, the decay of which has led to the collapse of the middle part of the facade. The visitor first enters a roomy vestibule and then passes through a wide doorway spanned by a high pointed arch, into a large back chamber, within which, against the wall, is a small room, regarded as the sanctuary. The piers at the side of the doorway in this room were originally faced with two limestone slabs embellished with human figures in relief and the back wall was completely covered by an altar tablet of hard limestone richly adorned with sculptured reliefs, the central group of which represents two priestly figures apparently making

offerings before a strange device resembling a cross. These sculptures are shown in costs, actual size on the west wall of this hall.

The sloping roof of the temple is decorated with elaborate designs in stucco in high relief; and the remarkable roof crest built of stone, with many openings, and originally covered with stucco designs, represents one of the most striking features of the native architecture.

This model was constructed under the supervision of W. H. Holmes, by DeLancey Gill, architect, and H. W. Hendley and W. H. Gill, sculptors.

229,470



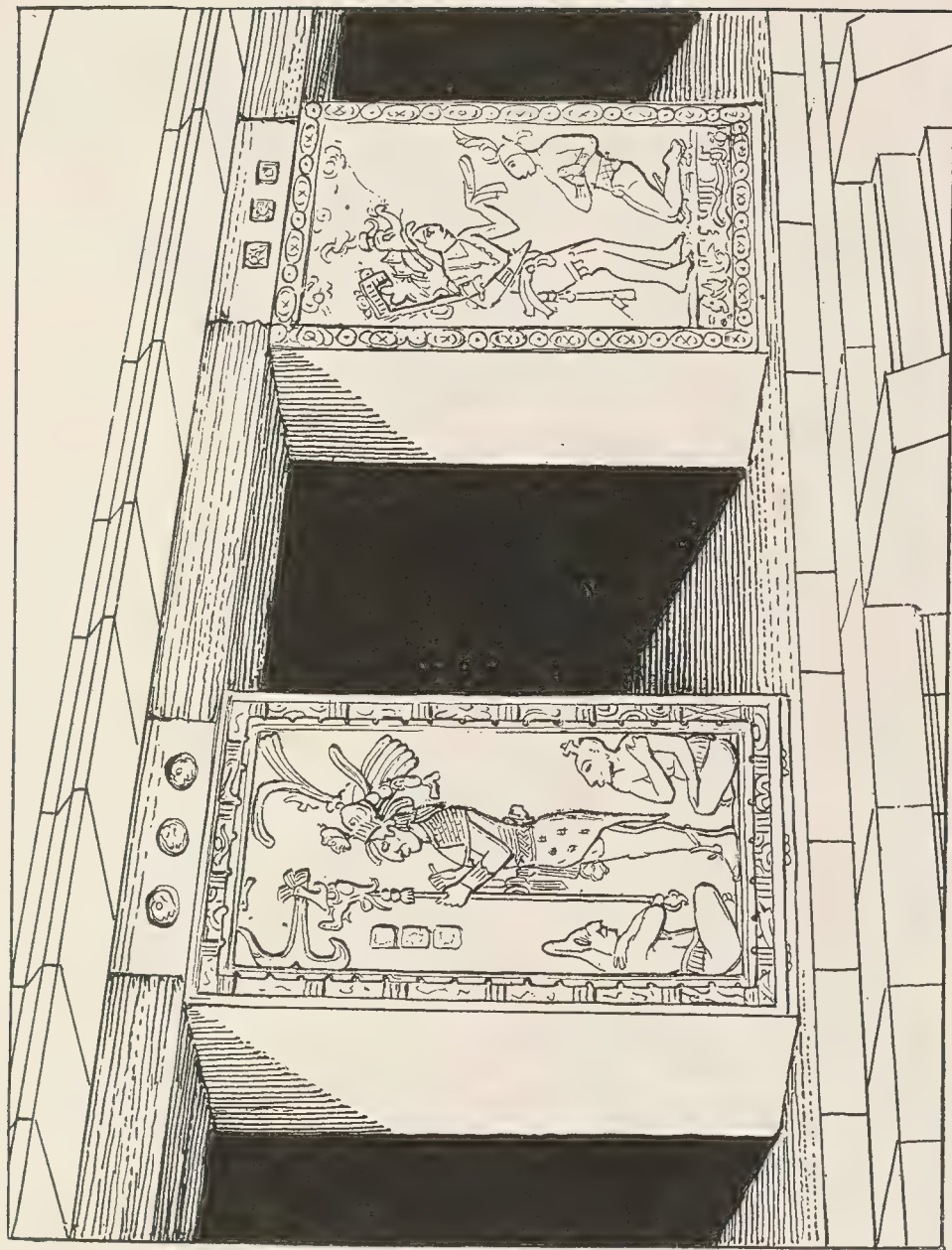
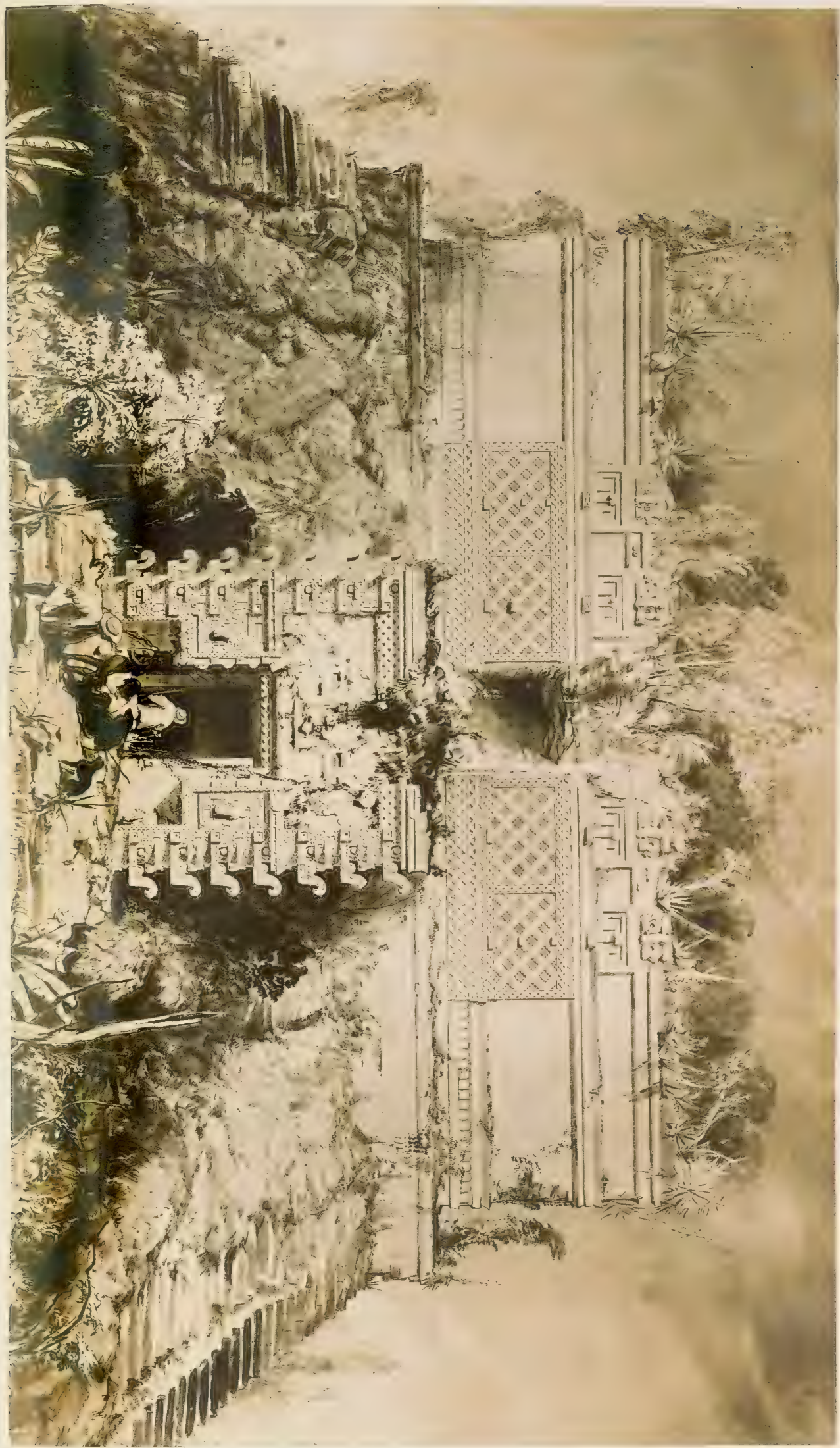


Fig. 7. Sketch showing the relation of the stucco embellished piers to the buildings. "Palace, Palenque, State of Chiapas, Mexico.

*one among many from the same
See my book on Yucatan*



A manifestation of Maya Shiva was
 an altar piece placed
 from 1840 to
 the very top of the temple
 structure



VEN TO THE U. S.
582

CHICAGO

1895 -1896

After returning from Yucatan my time for the remainder of 1895 and 1896 was very fully taken up with the preparation of reports and lectures on the trip, and the drawing in pen and ink of many sketches of ruined buildings, diagrams, sections, maps and panoramas for the illustrated report was a laborious task. The account of the trip in which these illustrations were used was published in two parts, a limited number of these being afterwards bound in a single volume.

The Museum duties were exacting and it happened thus that the University lecture course on archeological geology was much neglected. Herewith is a sample of the examination papers of the students attending my classes.

Speaks of the people
very much
and many
in my opinion

FIELD COLUMBIAN MUSEUM.
CHICAGO.

Chicago, Ill., Oct. 21st, 1896.

To Whom It May Concern:-

During my absence from the city for a few days,
Prof. W. H. Holmes, Curator of Anthropology has consented to act as
Director of the Museum, and his orders will be respected accordingly.

W. H. Holmes

Director.

Still on ground? Leaves with stuff

ANTHROPOLOGY.¹

Professor Holmes Studies of Aboriginal Architecture in Yucatan.—Professor W. H. Holmes in his recent visit to the Islands on the east coast of Yucatan, the sites of Chichen Itza, Izamal and Uxmal and certain shell heaps, near Progreso (See *Archeological Studies among the ancient cities of Mexico*, by W. H. Holmes. Field Columbian Museum Publication 8. Chicago 1895) has presented us with a valuable and characteristically clear summary of the important architectural features of the Peninsular ruins.

Eschewing archaeological investigation in such directions as those of implements, pottery, metals, art, food, burial, etc., he fixes our attention upon the stones used in building, the manner of dressing and laying them and the purpose of completed structures. The details of this subject casually referred to by Charnay and Waldeck and in the unindexed pages of Stephens, are summed up together with certain original observations and arranged in order, until we see the relationship, in purpose that characterizes the ruined structures in the region. No demonstration has yet been made as to the kind of tools used in carving the limestone of the facades and Professor Holmes like all previous travellers, leaves the question unanswered. Neither does he refer to Mr. McGuire's theory that the work was done with round hammerstones. But a block fortunately found at Chichen Itza, pecked on

¹ This department is edited by H. C. Mercer, University of Pennsylvania.

the surface with a pointed instrument and lined off for edge dressing with a flat edged tool, is shown as an interesting illustration (Fig. 1) of

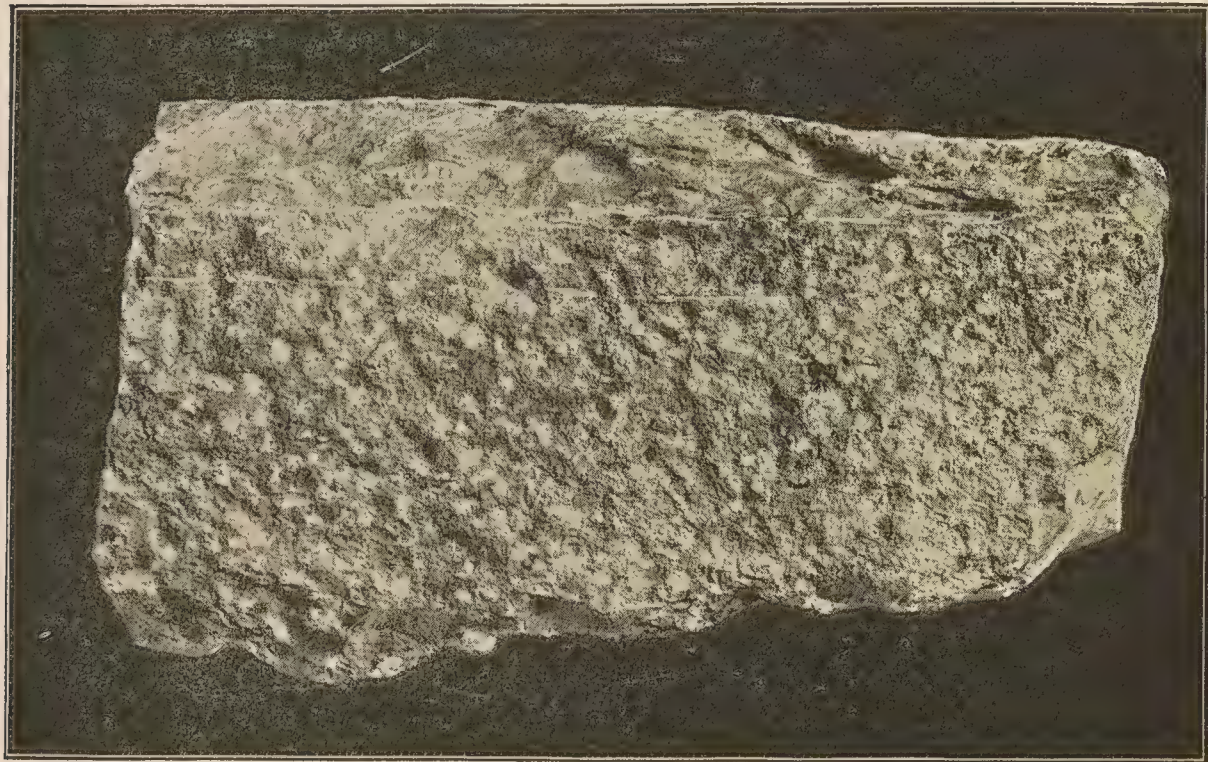


Fig. 1. Fragment of Stone from Chichen Itza, supposed to have been hewn by the ancient masons of Yucatan, the tools used are unknown, but we see the peckings of a *pointed implement* on the dressed side, and the long cuts of an *edged tool* along the upper margin.

the effect on stone of the kind of tool we are hunting for. Until we find the implement, however, we may believe on early Spanish authority, that hard copper was used, or imagine adzes and chisels of stone as we please, while we recognize with Professor Holmes the importance of ransacking the sites of quarries, where the innumerable blocks (20,000 carved on the facade of the "Governors House", at Uxmal alone) were procured.² Happily chosen general observations give a clearness to the whole presentation, and the delightful yet confused and complex impression of the ruins left upon the mind by the accounts of travelers becomes simple in the colder light of Professor Holmes systematic observations. The reader continually thanks him as he would thank the compiler of an index to a work of many volumes. Such characteristic general features as the ignorance of a master principle of mason craft like joint binding, the feeble grasp of the

² Captain Theobert Maler informed me in Ticul in 1895, that he had seen several such quarries.

facade upon the structure where no long stones project from the pudding like hearting within into the face, to clinch the crust to the mass, the V shape and consequent lack of catch of many of the facing

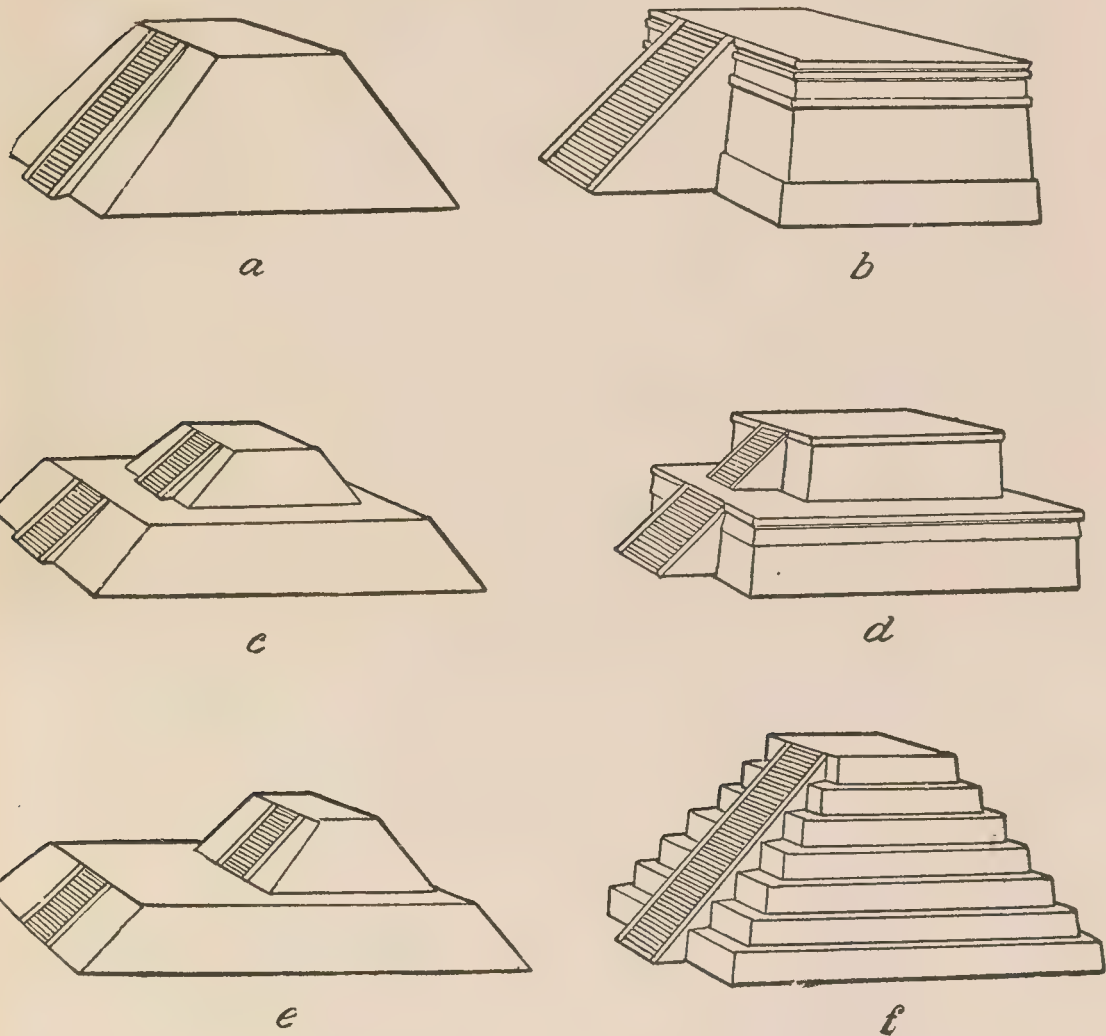


Fig. 2. Examples of Terraces and Pyramids, superstructures omitted.

stones, are dwelt upon in order, and a series of sketches disposed to catch the attention and impress the memory, show the varying forms of tumuli, (Fig. 2) the generally rectangular ground plan of buildings, (Fig. 3) and the construction of the arch by the edging in of opposing walls.

A question of much interest is touched upon when Professor Holmes in the introduction, refers to the geological age of the rock floor of the region in question, since the chance for establishing conclusions in Yucatan as to man's existence in geologically ancient times diminishes according as we learn that the Peninsula was too long under water

to count as an early human foothold. My statement (See Hill Caves of Yucatan. Lippincott, Phila., 1895, p. 21) referring to the rocks of Yucatan as of Mesozic Age, is at variance with the recent observations of geologists, while Professor Holmes says on the other hand, (p. 18): "The massive beds of limestone of which the Peninsula is formed contain and are largely made up of the remains of the marine forms of life now flourishing, along the shores. Fossil shells obtained from the rocks in various parts of the country are all of living species and represent late Pliocene or early Plistocene times, thus possibly bringing the date of the elevation of Yucatan down somewhat near that of the reputed sinking of Atlantis, some eleven or twelve thousand years ago, or not far from the period that witnessed the oscillations attending the glacial period." Though true that the peninsular limestone is largely composed of existing marine forms we learn on

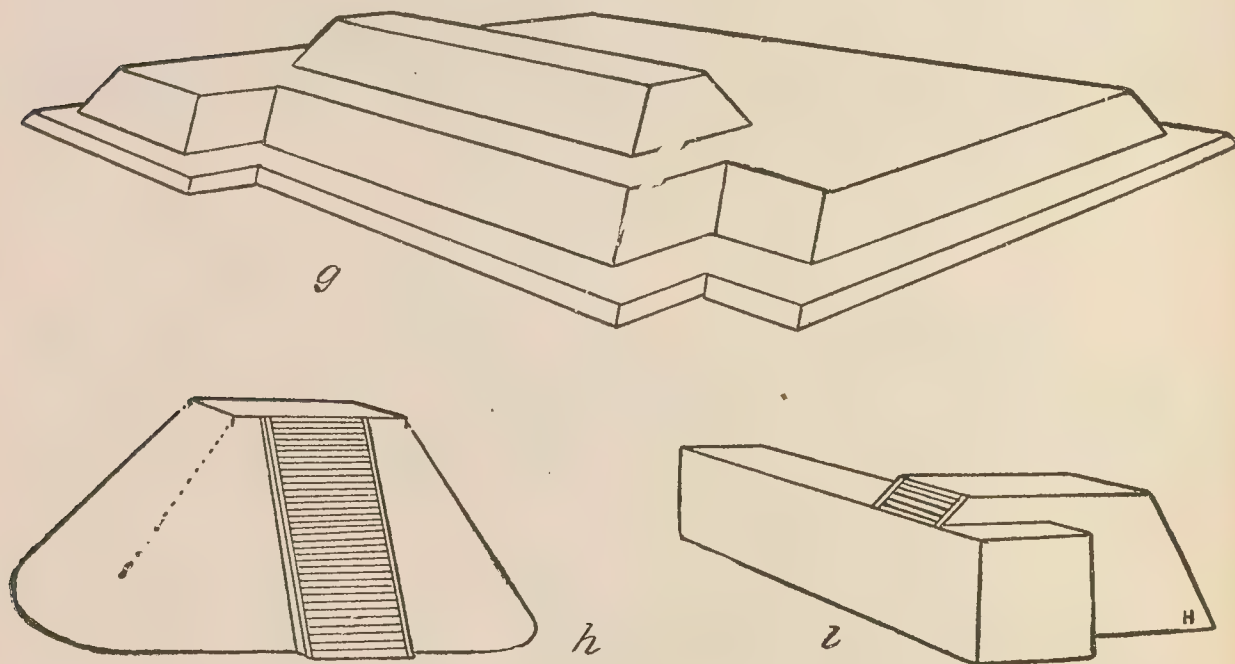


Fig. 2. Examples of Terraces and Pyramids, superstructures omitted.

closer examination that it is not entirely so, and that the shells are not *all* modern. We find that the full list of age denoting fossil mollusca collected from the rocks of Yucatan by the expedition in 1891 of the Academy of Natural Sciences of Philadelphia (See Geol. Researches in Yucatan, by Prof. Angelo Heilprin, Proc. Acad. Nat. Sci. 1891. p. 136) does not characterize the Yucatan rock as of Plistocene Age while the recent researches of geologists (Prof. J. W. Spencer makes the Niagara Gorge 32,000 years old) now tend to add to the antiquity of the Glacial Epoch. Professor Heilprin who conducted the Yucatan

expedition informs me that "the fossil shells are not *all* recent species since even the level plains about twenty to twenty five miles from the coast contain fossil mollusca (*Amusium mortoni*, from Cenotes near Merida, *Turritella perattenuata* and *Turritella apicalis* from R. R. cut one-half mile east of Tekanto. *Ostrea meridionalis* and *Arca* species undetermined, from a digging near Merida and *Lucina disciformis*) not now known to be living, and which make part of the Floridian formation (the typical Pliocene of the United States). Furthermore in the Sierra which contains the caves, a number of fossil forms have been found the determination of which is rather doubtful, but which

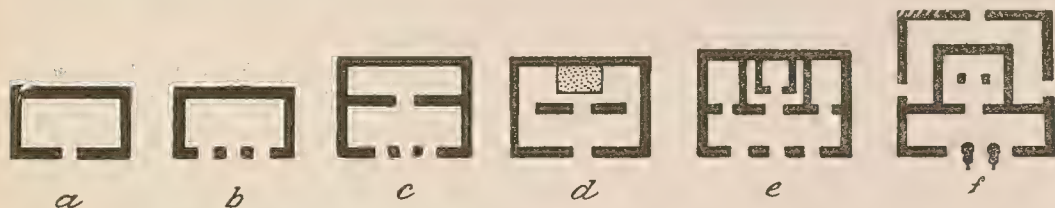


Fig. 3. The various kinds of ground plans used in Maya (ancient Yucatecan) temples.

- (a) Single chamber building with plain door.
- (b) Single chamber temple with wide doorway and two square columns.
- (c) Two chamber temple with wide doorway and round columns and the Sanctuary with single plain doorway.
- (d) Two chamber temple, the vestibule with simple doorway and the Sanctuary with three doorways and a low altar.
- (e) Four chamber temple Palenque type, the vestibule with three entrances and two squarish piers, the Sanctuary with tablet chamber, and two small lateral chambers.
- (f) Three chamber temple, Chichen Itza type, the vestibule entered by wide portel with two serpent columns, this Sanctuary enlarged by introducing two square columns to support the triple vault, and a long gallery with three doorways extending behind.

may be of early Pliocene or even of Miocene Age." Professor Pilsbry of the Academy of Natural Sciences and Mr. C. W. Johnson of the Wagner Institute say further after examination of the shell bearing rock specimens brought home by the Expedition above mentioned and now in the Academy of Natural Sciences, that "the shells indicate late Pliocene but by no means Plistocene Age, the presence of several characteristic Pliocene species *Turritella* (2 species) *Fulgur rapum*. *Pecten eboreus* *Amusium mortonii*, and *Ostrea meridionalis* preventing the possibility of the rocks being assigned to a later Epoch than the Pliocene while the fossils extinct and still existing considered together, indicate that the formation was contemporaneous with the Floridian formation of Prof. Heilprin."

In the second part of the volume a talent for lucid simplification impresses us in novel panoramic views of Uxmal and Chichen Itza, when stationed upon an imaginary height, we view the arrangement of walls and mounds clear of obscuring masses of leafage and rubbish, add to this something of the ever delightful charm of the landscape painter in sketches illustrating the course of expedition along the east coast, as we follow it from the Isle of women (Mujeres) to Tuloom, and from Cozumel to Cancun and El Meco. Looking from water to land we seem to see the tropical distance taking on its mirage like garb of coolness, and by grotesque pinnacles of rock, hear the rush of green waves upon the sands, where mysterious walls set softly in the deceitful blue allure us from the shore.—HENRY C. MERCER.

Reprinted from The American Naturalist, June 1st, 1896.

[FROM THE AMERICAN ANTHROPOLOGIST FOR APRIL, 1896]

BOOK REVIEWS

Archeological Studies among the Ancient Cities of Mexico. By William H. Holmes, Curator, Department of Anthropology. Part I, Monuments of Yucatan. (Field Columbian Museum, publication 8, Anthropological series, Vol. i, No. 1. Chicago, 1895.) 8°, 137 pp., 18 pls., with 14 descriptive pages.

A new intellectual center has formed. For something over a generation the energy of Chicago was spent in accumulating wealth, the foundation for leisure and culture; two decades past the budding culture manifested itself in appreciation of the drama and then of music, the first and second mile-stones in intellectual progress among peoples; awakening to the beauties of painting and sculpture quickly followed in normal sequence, and the reading and accumulation of standard literature came after, so that a dozen years ago those who note psychic signs perceived that an intellectual sun was rising on the city by the saltless sea. At that time it would have been rash to predict a date for the dawn of a scientific culture, though the culture itself was presaged as the end of the series of stages passing up through the drama, music, painting, sculpture, literature; but soon after a great library came, then a noble university, and next, under the stimulus of an international exposition, a grand museum. and these institutions interact with spreading intelligence and make strongly for still better things. The scientific culture of Chicago is young but vigorous; already several important periodicals are issued, chiefly under the patronage of the university, and several noteworthy publications have emanated from the museum; and no better illustration of the excellence of the scientific work in this new center has appeared than is found in the recent monograph on the Monuments of Yucatan. The rapidly growing intellectual activity of Chicago must be a source of gratification to all thoughtful people, and the recent activity in research is a matter for congratulation in all scientific circles.

When the Spaniards came to the new world few things impressed them more profoundly than the extent and splendor of the structures found in certain provinces; and the early descriptions of America were enriched with accounts, sometimes distorted and overdrawn but always attractive, of the temples and

roads of the Incas, the ancient cities of Yucatan, and the halls of the Montezumas. None of these accounts excited greater or more persistent interest than those of the ruins of Yucatan, and a long line of archeologists and explorers followed in the footsteps of the Spanish pioneers and have gradually corrected the early distortion and eliminated the early extravagance, and diffused definite knowledge concerning the ancient cities of Palenque and Chichen-Itza, Uxmal and Izamal, Tikul and Tuloom. The latest in this line of archeologists was Professor Holmes, who, under the auspices of the Field Columbian Museum and through the courtesy of Mr A. V. Armour, a patron of the Museum, examined several of the cities early in 1895. Many of the results of this examination are set forth in the elaborately illustrated monograph forming the first of the anthropological series of the Museum publications. The detailed descriptions are of special value by reason of the author's familiarity with aboriginal art and architecture and his training in perception and delineation, and the conclusions of special weight by reason of his experience in cognate researches and his clear recognition of genetic development among things artificial as among things natural.

Beginning with a summary of the expedition, Professor Holmes points out that a thousand years ago or more Yucatan was peopled by a peaceful and priest-led race, who built temples and palaces, rich in unique though barbarous sculptures, about the great cenotes or natural wells, but that the strength and unity of the people waned, so that many of their cities were ruined before the Spaniards appeared. Amid the ruins the conquerors found the Maya Indians, some 2,000,000 strong; they were of advanced culture, leading the North American tribes in language as in architecture, and having a fairly well developed system of hieroglyphics—indeed “an age of literature was actually though slowly dawning . . . when the shock of conquest came” (page 20); they possessed an elaborate calendar system of surprising accuracy, one of the notable products of their priest-craft; they were agricultural, and had mastered the textile and ceramic arts; and they engaged in commerce, navigating the seas as far at least as Cuba. Their most striking accomplishments were in the direction of architecture, and the author's summary of the architectural features of the ancient cities

carries the weight of generalization by a skilled observer. The ancient structures remain in surprising number and are often of colossal size, and the buildings are the more conspicuous because commonly erected on pyramids or terraced platforms. Most of those remaining were probably temples, some perhaps gymnasiums or ball-courts; they were not defensive, and seldom if ever mortuary. The relation of parts indicates a real architecture in accordance with predetermined plan, and argues the use of instruments of precision, though the structures of Yucatan are not so well oriented or grouped as those of other portions of Mexico. The material of the structures is chiefly the massive Tertiary limestone of which the peninsula is composed, with mortar and grout, and backings or heartings of earth; the stones used in facing are large, but not enormous as those used by the Incas and Montezumas, no single block weighing more than six or eight tons; and blocks and beams of wood were sometimes used in combination with stone. The structure is extravagantly massive, the cubic content of walls and partitions often exceeding the aggregate content of the rooms; and, in a typical case, if the substructure is taken into account, the mass of masonry is to the chamber space approximately as 40 to 1. The distinctive features of the Yucatec buildings are (1) massive hearting of earth, grout, or rubble, and (2) facing or veneering, usually with elaborately carved blocks, albeit of crude design, each block forming part of a figure or group, while in each wall the blocks are united in a mosaic of form. "Words fail to give a clear notion of the work, for what definite conception is conveyed when it is stated that in a single continuous façade upward of twenty thousand stones were used, not only hewn of varied special shapes, but each sculptured to represent some individual part of a face, figure, or geometric design, and all fitted together with such skill as to give the effect of an unbroken whole?" (page 26). Stucco work and painting were combined with carving in the representation of subjects, chiefly sacerdotal, in glyphs and reliefs, with some statuary.

The details of structure and ornamentation are illustrated in excellent photographs, admirably reproduced, as well as by the facile pencil of the artist-author. A feature of the work is the representation of cities in plan and juxtaposed birdseye panorama, from which the vegetation is omitted, so that relations may

be seen more clearly than on the ground save after continuous study; and those who know the skill of America's foremost delineator of geologic and archeologic landscape will appreciate, but not overestimate, his modest dismissal of them as "the merest sketches." Although the work professes to be no more than an outline, it is done strong and clear.

W J McGEE.

VOLUME VII

SECTION III

Resignation of Curatorship in the
Field Columbian Museum and return
to Washington as Head Curator of
Anthropology, National Museum, 1897.

Current Work, National Museum.

RETURN FROM CHICAGO TO WASHINGTON

1897

The story of my resignation from the Curatorship of Anthropology in the Field Columbian Museum in Chicago and my return to Washington may be briefly told, although the events which led to this resignation were a year or more in occurring.

This year was one of unusual activity, excitement and trouble, quite aside from the normal work and affairs of the Field Columbian Museum. The scientific staff of the Museum was gradually getting into a state of rebellion against Director Skiff as a result of his unappreciative and tyrannical attitude, but the attempt to dislodge him was frustrated by Mr. Higginbottom, who, knowing nothing regarding the claims of the scientific staff on the consideration of the management, stood by his protege.

For my own part, seeing the hopelessness of conditions in the Museum/^Ibegan to turn my face again towards Washington, D. C., and the appointment of Mr. Walcott as Acting Assistant Secretary of the Smithsonian, and the favorable attitude of Mr. Langley, Hallett Phillips, and others, opened the way to my return to the Institution. The correspondence is voluminous and interesting and throws light on every move that was made, but few of the letters need be preserved. The draft of a letter written to/^{Assistant}Secretary Walcott, January 28, 1897, may be introduced here as a matter of record.

After much preliminary writing, the position of Head

Curator of the Department of Anthropology in the National Museum was offered me and accepted. The necessary Civil Service examination soon followed, and the result, as a matter of course, being favorable, I received Secretary Langley's letter of appointment. My acceptance is dated June 22, 1897, the appointment being dated June 17, 1897.

to Mr. Walcott

Draft of a Letter/ explaining conditions in the Field Columbian
Museum:

January 28, 1897

Dear Sir:

I have your letter of January 28 and hasten to say that I appreciate in the fullest manner the generous feelings that have inspired it. It is true that I have from time to time expressed dissatisfaction with the conditions under which I have labored here in Chicago, and perhaps I had better begin by giving you in the briefest possible manner an idea of the nature of these conditions.

From the day of my arrival here, three years ago, there has been cause for discontent, and the conditions have recently become so aggravated that the entire scientific staff of the Museum has risen in rebellion. In this most unpleasant matter I had to take the initiative, and may be regarded as in a sense responsible for the results, and although the outcome has not quite realized our hopes, much ground has been gained and the way seems open for further improvement. The trouble developed out of the Chicago idea that only a business man, and a business man only, can conduct the business of an institution -- museum or otherwise -- which would have been well enough had the man chosen as director been qualified for the work. The director appointed did well enough in getting together and installing the vast exhibits brought together at the close of the World's Fair, but when we came to settle down to scientific methods and

work there was a total lack of appreciation and sympathy and we were hedged about with difficulties and embarrassments about which the outside world can have little conception.

The difficulty was due not only to the business direction which extended over the scientific work, but to the personality coupled with that direction -- a personality embodying more unfortunate elements than I have ever known assembled in one individual.

Aside from the personal phase of the matter I had the best reasons for complaint. When I arrived in Chicago, contrary to promises made, I found the Department of Anthropology of which I was to take charge divided into Anthropology and Industrial Arts, with no well-defined line between them, and I gradually learned that the latter, being favored by the Director because of the name "Industrial" was to be built up at the expense of the former, and placed under a business management, the Director being in charge. I was thus to be deprived of the very features of the work -- the development of the features illustrating the various branches of human progress from the point of view of evolution -- upon which I had labored for years and in which, of course, I take a special interest. A few months ago I found that other encroachments were to be made, that a Department of Monographic Exhibits was to be created, which would deprive me of other exhibits not readily classed as "Industrial". The motives in all this were to give the business director additional control and to reduce the importance of the scientific side of which I had charge, thus

curtailing my influence; and second, up to this time personal relations had not been disturbed or greatly strained as the changes were made in a gradual and most cunning way, and it was a very unpleasant thing to have to appeal to the Trustees over the head of the Director who had been given absolute power. It happened, however, at this juncture that other measures and acts of the Director became so objectionable that a general protest was agreed upon by the several curators and an appeal for a change or reform was made to the Trustees. Such were the conditions, however, that when the day for trial approached, fears were entertained of a disastrous scandal, a scandal that might seriously affect the prospects of further endowment for the Museum, and we were induced to compromise. As a result we have secured many improvements. The business Director has been deprived of his absolute power over the scientific departments, and numerous attendant changes have been made. In my own field, for example, the two objectionable departments have been abolished and the exhibits nearly all thrown back to Anthropology where they belong. I am thus for the first time in a position that may be regarded as bearable.

Considering all phases of the case, however, I am ready to say that if an opening should develop for me in Washington, the possibility of which Mr. McGee has indicated in a recent letter, an opening suited for the display of my particular talents, I should be deeply gratified, but I beg

that you will not feel for a moment that you must provide for me, and especially I would stipulate that whatever is done, other worthy people should not suffer on account of my ambitions. That my thoughts frequently turn homeward and the picture of settled conditions, congenial associations fully in sympathy with scientific work comes before me cannot be denied. The field here is a great one and promises much for the future, but I fear that years of crudeness, struggle and uncertainty must follow, notwithstanding the fact that we have in the Museum management some of the best and most appreciative men I have ever known.

Sincerely yours,

WILLIAM H. HOLMES

Professor of Petrology
F. PENROSE, JR.
Professor of Economic Geology
J. H. HOLMES
Professor of Geologic and Graphic Geology
R. VAN HISE
Professor of Pre-Cambrian Geology
C. FARRINGTON
Professor of Determinate Mineralogy
HART WELLS
Professor of Paleontologic Geology

CHICAGO

Jan. 20, 1900.

Professor W. H. Holmes,

My Dear Professor Holmes:-

I regret very much to learn that you feel it necessary to sever your connection with our faculty because of your inability to give courses here in view of the pressure of your Washington duties. I know that all my colleagues fully sympathize with me in this decision. I can appreciate in a measure the stress of duty that is continually upon you, and it is only in view of this that I refrain from further urging that you continue with us.

You will be glad to know that the patronage of the department is larger than ever, both in the undergraduate and graduate branches. We have just secured the Gurley collection, which is marvelously rich in fine Paleozoic invertebrates, probably unsurpassed in this respect.

With very kind regards to Mrs. Holmes, I remain,

Very truly yours,



Windsor Hotel, Chicago
June 22nd 1897

Professor S. P. Langley
Secretary of the Smithsonian Institution

My Dear Sir

Your letter of June
17th notifying me of the successful
termination of my Civil Service exami-
nation and also of my appointment
as Head Curator of the Division
of Anthropology in the U. S. National
Museum is at hand. I appreciate
very highly the honor of this ap-
pointment, and will close my

engagement with the Field Columbian
Museum at the earliest possible
date - not later I hope than
the first day of September.

On my arrival in Washington
I will report at once to Professor
Charles D. Walcott as you direct.

Thanking you for your many
kind offices I remain very
Respectfully Yours

W. H. Holmes

EDWARD E. AYER,
OLD COLONY BUILDING,
CHICAGO.

September 28th, 1897.

My Dear Mr. Holmes:--

You may be assured that it was with the greatest regret I received notice of your contemplated change in going to Washington as the head of the Anthropological Department of the National Museum.

While you very well know that I wish you every advancement and every pleasure that can possibly come to you, still I must confess selfishness in wishing you could have stayed with us.

I know that the Board of Directors and officers of the Field Columbian Museum thoroughly appreciate the great industry and the splendid knowledge that you have brought to your work here, and you may rest assured that it is only with regret that any of them think of your leaving the Museum.

Again wishing you every enjoyment and every success that can possibly be meted out to one in this world, I remain,

Your very sincere friend,

Edmund S. Ayer

Pres., Field Columbian Museum

Prof. W. H. Holmes,

C/o Field Columbian Museum,

Jackson Park, City.

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Personal.

K.

DEPARTMENT OF THE INTERIOR

UNITED STATES GEOLOGICAL SURVEY

WASHINGTON, D. C. March 26, 1897.

Prof. W. H. Holmes,
5726 Washington Avenue,
Chicago, Ill.

My dear Holmes:-

I learned at the Senate this morning that it is quite probable that the appropriation bills will pass the Senate and go to the President very much in the same form as they passed the last Congress. This, of course, will permit our carrying out the plans we discussed for the National Museum, and your coming to Washington. I will write to Professor Langley on the subject within a few days.

Professor Langley informed me this morning that there were \$2,000 available in the reserve fund for the increase of the ethnological collections of the Museum, which must be expended before July 1st. Can you suggest at once where this money can be placed in order to most enrich the collections of the Museum?

I have been away for a week taking a rest, returning this morning. Trusting that you are well, I remain,

Truly yours,

Chas. D. Walcott

DEPARTMENT OF STATE,
WASHINGTON.

March 23rd, 1897.

W. H. Holmes, Esq.,

5726 Washington Ave.

Chicago.

My dear Holmes.

I have your letter of March 20th. On Sunday last I dined with Mr. Langley at Mr. Adams's. I had not seen him before for a long time. He is looking better than I expected to see him. I asked how affairs were getting on at the Museum. He said he thought they would be all right if he could succeed in retaining Wolcott. I told him I had heard there was a possibility of your coming here to which he assented and said he thought you would come. I remarked that this would be very advantageous to him and to the Museum, if things could be so arranged that there would not be any collision. He replied there was no occasion for conflict. To this I replied that the only person you were apt not to agree with was Wilson; that it was almost impossible for any one to get along with him. He answered that Wilson was a good kind of an old person and that you had such tact and management that you would have no difficulty with him. I thought he said this with a manner as if he did not think very much of W. or care very much for him. I observed that you would be giving up a great deal by coming here, salary and otherwise. He replied that as to salary he thought things could be fixed so that your salary here would approximate that received by you where you are now. I am delighted at the prospect of your being with us again. I should add that Mr. Adams told Langley that it would be a great thing for him to secure you and he intimated that your talents were rather wasted in Chicago.

Yours very truly,

W. Hallett Phelps



DEPARTMENT OF THE INTERIOR

UNITED STATES GEOLOGICAL SURVEY

WASHINGTON, D. C. April 7, 1897.

Prof. W. H. Holmes,
5726 Washington Avenue,
Chicago, Ill.

Dear Professor Holmes:-

Yours of April 3d received. I should like any information you can give in relation to purchasing collections. I sent you some memoranda given me by Professor Mason.

I do not think it best to try to get material out of Mexico this year. You can arrange for that after you come here.

I shall write Professor Langley this morning requesting him to write to you.

You need not feel disturbed about the Civil Service matter. Under the law some kind of examination must be held. I shall recommend that it be mainly the presentation of evidence of ability, as shown by works published, and positions filled.

As soon as you write Professor Langley that it will be agreeable to you to accept the position, I will arrange for the Civil Service examination.

In haste,

Truly yours,

Charles D. Walcott

S

SMITHSONIAN INSTITUTION

WASHINGTON

S. P. LANGLEY,

SECRETARY.

April 20, 1897

Dear Professor Holmes:

I am glad to receive your acceptance of the position of Anthropologist in charge of the Division of Anthropology in the National Museum.

I will take immediate steps to arrange as far as it can be done with the Civil Service Commission, and I will look forward to the pleasure of seeing you here later.

Very truly yours,

S. P. Langley
Secretary.

Professor W. H. Holmes,
#5726 Washington Avenue,
Chicago, Illinois.

July 1902

July 1902

July 1902

July 1902

July 1902

July 1902

July 1902

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July 1902

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July 1902

July 1902

Personal.

K.

DEPARTMENT OF THE INTERIOR

UNITED STATES GEOLOGICAL SURVEY

WASHINGTON, D. C. April 20, 1897.

Prof. W. H. Holmes,
5726 Washington Avenue,
Chicago, Ill.

My dear Holmes:

I was delighted to receive your letter of April 17th, stating that you had forwarded your acceptance of the position in the National Museum. I will look after the Civil Service matter today. A letter to the Commission is all ready for Professor Langley to sign, and I will endeavor to see the Commission this afternoon. If they will accept the proposition that the examination shall be based upon the publications and the positions held by the candidates, there will be no necessity for your coming on.

The National Academy meets this morning, and I am very busy. I will write you soon in relation to the Civil Service matter.

Yours truly

Charles D. Walcott

Personal

K.

DEPARTMENT OF THE INTERIOR

UNITED STATES GEOLOGICAL SURVEY

WASHINGTON, D. C. May 11, 1897.

Prof. W. H. Holmes,
5726 Washington Avenue,
Chicago, Ill.

My dear Holmes:-

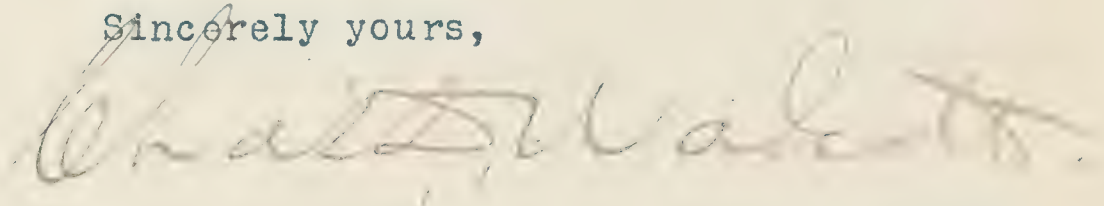
I have requested the Civil Service Commission to send you the necessary blanks and papers in relation to the position of Anthropologist in the National Museum. I have not seen the questions, but I think you will find them essentially the same as I have written you heretofore.

As it will be necessary for you to send the papers direct to the Commission, I return herewith the list of your published papers, and the statement of the several positions you have occupied.

I suggested the writing of an essay on the administration of the division of Anthropology in order that it might bring out your views in relation to the same.

The papers are to be returned before June 1st, and I hope very soon thereafter that the entire matter will be settled to our satisfaction.

Sincerely yours,



Inclosures.

COMMISSIONERS.

JOHN R. PROCTER, President.
WILLIAM G. RICE.
JOHN D. HARLOW.

RALPH SERVEN, Chief Examiner.
T. DOYLE, Secretary.

Address: "CIVIL SERVICE COMMISSION,
WASHINGTON, D. C."

J-N

IN YOUR REPLY REFER TO

FILE NO. A

United States
Civil Service Commission,
Washington, D. C.

May 14, 1897.

Mr. Charles D. Walcott,
U. S. Geological Survey,
Washington, D.C.

Sir:

The Commission advises you that, in compliance with the request contained in your letter of May 11, Prof. W. H. Holmes, 5726 Washington Ave., Chicago, has been sent the necessary blanks and papers relative to the examination for the position of Anthropologist in the National Museum.

Very respectfully,

John R. Procter
President.

*I have not seen all my
blanks or papers sent
is confidential - sent all
to applicants - Jan 11
in Boston - returned Wed
A. M. - July 1/2*

May 27, 1947

Mr. Charles E. Wilson

U. S. Senator, D. C.

Washington, D. C.

Dear Sir:

The Committee on Education and Labor, in connection with the war
 relief program, is now in the process of reviewing the work of the
 War Relocation Authority. It is necessary that the necessary plans and
 reports be submitted to the Committee for the purpose of determining
 what is the National Museum.

Very respectfully,

Trusting,

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Personal.

K.

DEPARTMENT OF THE INTERIOR

UNITED STATES GEOLOGICAL SURVEY

WASHINGTON, D. C. June 11, 1897.

Prof. W. H. Holmes,
5726 Washington Avenue,
Chicago, Ill.

My dear Holmes:-

Yours of June 8th received this morning. You have passed the Civil Service at probably the highest ratio of any one who has ever had any form of examination. The Committee consisted of Major Powell, an officer of the Commission, and myself. The Commission will certify your name to Professor Langley at once. I told him of the result of the examination yeaterday, and he was greatly pleased. You will probably receive an official letter from him within a few days.

If you give three months' notice from the 15th, that will bring you here about the 15th of September. I am greatly pleased at the outcome, and we shall all be glad to see you back in Washington.

With kind remembrances to Mrs. Holmes, and the boys, I remain,

Truly yours,

Charles D. Walcott

RETURN FROM CHICAGO TO WASHINGTON

In 1897 I returned from Chicago to Washington as Head Curator of the Department of Anthropology in the National Museum and at once took up the varied responsibilities of the curatorship of extensive collections involving the following divisions:

- (a) Division of Ethnology: O. T. Mason, Curator; Walter Hough, Assistant Curator; F. H. Cushing, Collaborator; J. W. Fewkes, Collaborator.
- (b) Division of Historic Archaeology: Paul Haupt, Honorary Curator; Cyrus Adler, Honorary Assistant Curator; I. M. Casanowicz, Aid.
- (c) Division of Prehistoric Archaeology: Thomas Wilson, Curator.
- (d) Division of Technology (Mechanical phases): J. E. Watkins, Curator. Section of Electricity: G. C. Maynard, Custodian.
- (e) Division of Graphic Arts: S. R. Koehler, Honorary Curator. Section of Photography: T. W. Smillie, Custodian.
- (f) Division of Medicine: J. M. Flint, U.S.N. Honorary Curator.
- (g) Division of Religions: Section of Historic Religious Ceremonials: Cyrus Adler, Custodian.
- (h) Division of History and Biography: Section of American History: A. H. Clark, Custodian; Paul Beckwith, Aid.

The first field work of importance was a trip to the West Indies with Major Powell, a geological and archeological reconnoissance. This was connected directly with a visit

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to Jamaica with Secretary Langley to aid him in a study of the flight of the turkey buzzard with a view of learning something of the possibilities of flight. There followed in order expeditions to California and Mexico with other and varied activities.

UNDER NEW CHIEFS

Head Curators of Sections in the National Museum.

RETURN OF PROF. WILLIAM H. HOLMES

Trio of Distinguished Students Selected to Preside.

THE MUSEUM REORGANIZED

Professor William H. Holmes, who was appointed head curator of the section of anthropology of the National Museum July 1, has returned to Washington to assume his duties. Professor Holmes has been in Chicago for the past three years and a half. His appointment was a source of great gratification to his many friends in this city, which he made his residence for a long number of years previous to his acceptance of a position in Chicago. From a scientific point of view alone, Washington is a great gainer by Professor Holmes leaving Chicago, as he is one of the most eminent anthropologists in America.

As was stated at the time in *The Star*, at the suggestion of Acting Secretary Wolcott of the Smithsonian Institution, in charge of the National Museum, and with the consent of Secretary Langley, who has charge of the institution, the different departments were divided into three sections



W. H. Holmes.

—those of anthropology, biology and geology.

Head curators were appointed to have charge of these, with salaries each of \$3,500 a year. Prof. Holmes was appointed to the anthropological section, Dr. Frederick W. True in charge of that of biology and Dr. George P. Merrill at the head of the section of geology.

The Classifications.

In the section of anthropology is classed everything pertaining to man; in the biological section are placed the things relating to zoology and botanical subjects, while in the section of geology are classed mineralogical specimens and those of similar character.

Two of these head curators are at present in the city—Prof. Holmes and Dr. True. Dr. Merrill is absent, having gone to the geological congress in Moscow, Russia, from where he is expected to return by the first of November.

Of the three head curators Prof. Holmes is probably the best known in Washington, he having been a resident of the capital for more than twenty-five years, and being closely identified with its interests. He left Washington three and a half years ago to become professor of anthropic geology, and at the same time was tendered the position of curator of anthropology in the Field Columbian Museum of Chicago.

Prof. Holmes is a native of Harrison county, Ohio, and is a graduate of one of the state normal schools. His introduction to the scientific life of the capital was of rather strange occurrence. He was passing through Washington on his way to continue his education in Salem, Mass., and stopped over a day to visit the Smithsonian Institution. He was engaged there, for his own amusement, in making a sketch of a brilliant bird, which had struck his fancy. While engaged at this a gentleman happened to pass by and stopped to watch the young man's work. Becoming interested, the gentleman inquired if he could draw a variety of objects, stating that he himself was going to Alaska, and he wished to engage some one in his place. It was Prof. H. W. Elliott, who took Holmes upstairs, and introduced him to Prof. Meek, who was a leading authority on paleontological matters.

Prof. Holmes was engaged to make drawings of different objects, after a short conversation, and continued the work all summer, giving entire satisfaction. This was in the summer of 1871.

Engaged as Artist.

In the following spring Prof. Holmes was appointed to a position with the Hayden survey, which left for the Rocky mountains, as artist. He remained there three years, and was then placed in charge of a geological division. He continued survey work in the southwest, having instructions to make examinations of cliff dwellings. Reports were made of these and Prof. Holmes became greatly interested in the subject.

A little later the survey was reorganized and Prof. Holmes was transferred to the new one, under Prof. Powell. He began the study of aboriginal American arts, started with his cliff dwelling explorations. He became an honorary curator in the National Museum and had charge of native ceramics.

In 1889 Major Powell had Prof. Holmes transferred to the bureau of ethnology, so that he might take up the study of archaeology. The questions at issue relating to glacial man seemed to require not only a knowledge of archaeology, but of geology. Several years were spent in field work, of which he had charge, in relation to the antiquity of man in America.

Prof. Holmes' discovery of the quarries on Piney branch, Mt. Pleasant, were published at the time, and caused a decided sensation in scientific circles, as they had a bearing upon the whole history of

and Ornament in the Ceramic Art; Textile Art in Prehistoric Archeology; A Study of the Textile Art in its Relations to the Development of Form and Ornament; On the Evolution of Ornament; An American Lesson; and Evolution of the Æsthetic.

In 1889, and for the five following years, Mr. Holmes was in charge of the U. S. Bureau of Ethnology. During this time he gave much attention to the antiquities of the Atlantic States, and more especially to the ancient quarrying and mining industries of the native peoples, among whom the manufacturing of stone implements seems to have been a most important industry. An important result of this work was a more complete knowledge of the range of art in stone, and an insight into the significance of the countless rudely flaked stones, usually attributed, on account of their strange character and undetermined functions, to a very ancient paleolithic race. Having clearly demonstrated that these puzzling objects were merely the chips or refuse of manufacture and without function or intrinsic value, Mr. Holmes proceeded to show that the

theory of a paleolithic and glacial man in America, based largely upon these unfinished or rejected forms, is untenable. This conclusion has led to a revision of the evidence, and a reopening of the whole question of an American occupation, corresponding to the glacial, paleolithic occupation of Europe. Among the important papers on this subject, published by Mr. Holmes, the following are particularly notable: *Are there Traces of Man in the Trenton Gravels; Vestiges of Early Man in Minnesota; Traces of Glacial Man in Ohio; Natural History of Flaked-stone Implements; Order of Development of the Primeval Shaping Arts; and Archeology of the Potomac-Chesapeake Tide-*

Water Country.

In 1893 Mr. Holmes became associated with the geological department of the Chicago University, where he gave one course of lectures on *Anthropic Geology*, and another on *Graphic Methods Applied to Geologic Illustration*. In 1894 he was appointed Curator of anthropology in the Field Columbian Museum, Chicago, where he served three and a half years classifying, installing, and describing the rich collection of that institution. The winter of 1894 was spent in Mexico, studying its ancient monuments. His report on this work has been published in two parts: I. *Monuments of Yucatan*, and II. *Monuments of Chiapas, Oaxaca, and the Valley*

of Mexico. In July, 1897, Professor Holmes was again called to Washington, where on October 1 he took the position of head Curator of Anthropology in the U. S. National Museum.

From this brief sketch it will be seen that Professor Holmes' life has been a busy and undoubtedly a happy one, for he early found that his life-calling and its pursuits brought him happiness. He has published fifty-four papers, many of them voluminous, and all of them crammed with valuable additions to those sciences which he has studied so carefully and continuously.

Professor Holmes is a graceful speaker, and he has mastered a style that is a surprise and a delight to the purely literary man. His illustrations made, it is said, with marvelous rapidity, are the very best we have seen. They are not simply superior as works of art, but they illustrate his text in a way that makes his reports clear to the veriest novice.

Professor Holmes is in the midst of his great work, and, as it proceeds, it is our hope that the readers of MONUMENTAL RECORDS will know more and more of this scholarly and gifted American.

ALFRED R. CALHOUN.

ANTIQUITIES OF MEXICO

For Johnson's Cyclopedia

By W. H. Holmes, 1890.

The Toltecs, Aztecs and other well known Nahuatl peoples followed one another in their occupation of Mexican territory, building and deserting their cities and monuments. Preceding and alternating with them were other nations and tribes of less note who built and deserted according to their varying cultures. As a result the whole country now presents a medley of art remains and withal a wealth of art remains not surpassed in any region in America and possibly in the world. It is impossible in a few pages to adequately characterize these varied and remarkable antiquities. The most striking of the many existing features of pre-Columbian culture in Mexico are the ruins of cities, temples and monuments. The dismantled remnants of a chain of colossal structures extends from Chihuahua on the north to Oaxaca on the south, the best preserved examples occurring south of the valley of Mexico. The degree of preservation is, however, not a reliable index of the original stability and perfection of the structures as some were in ruins when the conquerers landed and others were so situated that when the storm of European devastation swept the continent they received the brunt

of the shock and were totally demolished. Tenochtitlan, Cholula and Tezcucó, centres of Nahuatl culture and power, were, with the downfall of these peoples fairly leveled with the ground, while Teotihuacan, Xochicalco and Mitla, already in ruins, stand today magnificent monuments of a shadowy culture and of peoples known only through meagre and unreliable tradition.

The Pyramid: As viewed by the observer of the present day the most striking features ^{many of} of these ruins are the pyramids and pyramidal masses of earth, cement, and masonry. This was not so during the period of occupation as these ~~massive~~ structures were the nuclei of clusters of ceremonial buildings and of dwellings, traces of which have as a rule disappeared. The largest is that of Cholula which in its present much altered state measures upwards of 1400 feet square at the base and is nearly 200 feet in height. They were built in a great variety of forms and of such materials as were at hand. They were frequently finished with cement or faced with neat masonry and were furnished with terraces and stairways, and the truncated summits were generally occupied by public or religious structures, ~~some of which are partially preserved.~~ In no case were they simple pyramids, serving exclusively as monuments or as receptacles for the dead as ^{dis} ~~were~~ the ~~great~~ pyramids of other countries.

Mural remains: The mural remains of Mexico present many features of interest, and are often characterized by great massiveness, although never exhibiting pronounced megalithic features. The plan of the buildings was often complex and the area covered large. The masonry was well constructed of cut or of uncut stones laid in mortar. Grout and sun-dried bricks were also extensively used in some sections. The true arch was unknown; doors and windows were bridged by wooden lintels, by slabs of stone or by smaller stones overlapping until the span was complete.

Sculptures, etc: Next to the pyramidal structures the carvings and sculptures are the most striking features of these remains. The walls are often covered with elaborate figures in low relief and sculptured columns and slabs and masses of stone, some being of enormous size, are found; the Almaraz monolith discovered on the site of San Juan Teotihuacan weighs upwards of 18 tons. It would take volumes to describe and illustrate the movable antiquities of Mexico. The pottery is varied in form, rich in color and abounds in aesthetic and symbolic design. Each section has its distinctive groups of ware indicating the strong individuality of the tribes and nations. Implements of stone flaked and polished are numerous, and an infinite number of minor

carvings, statuettes, charms ^{and} ornaments ~~etc~~ now grace the museums of both continents. Objects of metal are not uncommon and some elaborate ornaments in gold and gold copper alloy have been preserved. ^{Iron had not come into use.} Feather work and specimens of the graphic art are among the most ^{noteworthy} ~~remarkable~~ of the achievements of these ~~remarkable~~ peoples and one may turn the leaves of Lord Kingsborough's massive volumes of picture writings with ever increasing wonder.

Casas Grandes: The ancient ruins of Northern Mexico are closely allied in most respects ^{with} the better known ruins of New Mexico and Arizona. Cliff ruins are found in the mountains and deserted pueblos are scattered over the valleys of Chihuahua. The most noted example of the latter class is known as the Casas Grandes located in the northwestern part of the state. The principal ruin consists of three or more clusters of rectangular apartments connected by obscure walls and occupying an area about 250 feet in width by 800 feet in length. The walls appear to be composed of cement or grout, a mixture of earth, gravel, and cut straw, which was built up in sections by pouring the plastic material into movable boxes of the thickness of the wall, the boxes being moved along when the contents had properly set. The heavier walls are five feet thick at the base and still stand to a height

approximating ~~two or~~ three stories. Neither the period of occupation nor the people concerned are known ^{as} ~~the~~ site is said to have been deserted when first visited by the whites. Many less important ruins, mostly reduced to mere heaps of debris, are scattered about. Stone, the normal building material, was used in localities where it readily could be obtained.

Quemeda: 500 miles farther south in Zacatecas ^{are} ~~we encounter~~ the ruins of Quemeda of which nothing is known as to period or people, and the relations of these remains ^{with} ~~to~~ those of other sections are not well made out. The pueblo has been extensive and was evidently the centre of a flourishing community. Its situation resembles that of many of the pueblos of the north occupying a somewhat precipitous but irregular mesa-like elevation from 200 to 500 yards wide and half a mile long. It was inclosed where approach was easy by heavy walls of masonry. The plan of the Pueblo is irregular conforming to the topography of the site. The walls, terraces, enclosures, columns, temples and pyramids are substantially constructed of uncut flag-like stones laid in reddish mortar tempered with straw. There are indications of plastering but no carving or other ornamental work, and no arches, doors or windows have been noted.

Tula, Tenochtitlan, Texcoco: Between Quemeda and the centre of the Nahuan empire, Tenochtitlan, there are numerous interesting remains, few of which have been adequately explored. Tula, the most northern centre of culture with which any historic people is definitely associated, is said to have been a Toltec city of early date and great importance, but explorations conducted by Charnay and others develop little of an architectural kind, and the few relics found may apparently as readily belong to Aztec as to Toltec culture.

On the sites of Tenochtitlan, the Aztec capitol, now Mexico, and Texcoco, its rival, the Acolhuan capitol, almost nothing is left of the splendid structures of the pre-Spanish period. Two of the most ~~remarkable~~ ^{notable} pieces of sculptures ~~known~~ in America, the Calendar stone and the compound ^{site} ~~and~~ idol, the god of war and the goddess of death, were dug up on the site of the present cathedral of Mexico where the great Teocalli, ascended by 120 steps, once stood; and farther out toward the lake excavation discloses ^{after layer} layer of art remains representing successive occupations, the lower characterized by pottery as rude as anything yet found in America. At Texcoco, on the eastern side of the lake, there are still meagre traces of a number of structures, probably pyramids, and numerous carvings on

stone and minor relics of clay, ~~and still being recovered~~.

On the hill of Texcocingo, a few miles beyond Texcoco, there are several ~~most remarkable~~ ^{unique} remnants of ancient art - chambers, and fountains and stairways and statuary carved in the solid rock. The hill itself, several hundred of feet in height was, in the period of Nezahualcoyotl, fairly remodeled by the cunning chisel of the sculptor and masked and crowned with artificial structures.

San Juan Teotihuacan: The valley of Mexico furnishes nothing to compare in importance with the ruins of San Juan Teotihuacan, 25 miles north of Mexico. Here two massive pyramids overlook the crumbling ruins of a once ~~remarkable~~ ^{extensive} city, the history of which is almost wholly lost. Aside from the pyramids the most striking feature is the so-called street of the dead, a broad highway over half a mile in length bordered by ruined temples, teocallis, and other structures no doubt mainly of a sacred nature. The larger pyramid, stands a little to the east of the roadway and is surrounded by earthen walls and low mounds. It is some 200 feet high and about 735 feet square at the base; the summit is truncated and measures 60 by 90 feet. The smaller pyramid is about 140 feet high and approximates 500 feet square at the base, the flattened summit measures ^{up} ~~at~~ about 40 by 60 feet. These structures appear

to be composed of somewhat heterogeneous materials having been finished with coatings of cement and possibly to some extent with facings of stone. There are signs of narrow terraces, and originally spacious stairways probably led up to the temples ~~that must~~ ^{that} ~~have~~ crowned the summits. At the south base of the smaller pyramid the roadway expands into a large plaza near the centre of which is a small mound; at the base of this lies a much mutilated idol of large size and another, quite well preserved, found among the mounds on the west side of the court has recently been removed to the Museo Nacional. Many minor relics have been recovered from this site and the soil abounds in fragmentary earthenware and especially in small terra cotta heads probably employed as votive offerings.

Cholula: Next in interest to Teotihuacan is Cholula a more recent centre of Toltec power situated some 60 miles to the south east of Mexico and a few miles west of the city of Puebla. The pyramid is ^{one of} ~~probably~~ the most noted aboriginal structure in America ~~and has an important place in history.~~ It was stormed and taken by Cortez, by whom the native temple crowning its summit was destroyed and replaced by a Catholic church. This pyramid is still nearly 200 feet in height and measures about 1400 feet square at the base. It rises abruptly from the plain on the east to the

flat summit, and descends on the west in a number of terraces, now not clearly defined. Excavations on the north and east show a mixed construction or a succession of accumulations ^{composed of} ~~including~~ adobe bricks, earth and cement. Other much reduced structures surround the pyramid, and the soil is filled with relics including ~~and~~ broken pottery of neat and artistic make.

Xochicalco: The ruins of Xochicalco, situated about 65 miles southwest of the city of Mexico, are ranked among the most interesting in Mexican territory. The principal structure is situated upon the summit of an oblong ~~circular~~ ^{conical} hill two miles in circumference and 400 feet high. This is surrounded by stone terraces and pierced by mysterious galleries and chambers not yet satisfactorily explored. Like the hill of Texcoco this "hill of flowers" was probably at one time fairly remodeled by art and covered with walls and buildings. The summit is level and is said to measure 280 feet by 328 feet. It is surrounded by a wall and occupied by a number of ruins, the principal of which is a pyramidal structure 58 by 68 feet at the base and retaining a height of 20 feet or more. The walls are built of large accurately dressed blocks of porphyry, brought apparently from a distance of several miles; they contract from the base to a height of perhaps 8 feet;

above this they rise vertically for four or five feet and then expand in a wide cornice. Above this are remnants of a second story and it is said that originally there were several stories, the full height being given traditionally as 65 feet. The effect thus suggested would have a close general resemblance to that of the remarkable pyramid of Papantla near the Gulf coast, 150 miles northwest of Vera Cruz. The entire surface is covered with mythic figures sculptured in low relief. This structure has decided points of resemblance to other important architectural remains in Mexico and Central America, but as a whole possesses a large share of individuality. It is not assigned even traditionally to any particular people.

Mitla: Passing over the many minor ruins and the multitudes of relics distributed over Vera Cruz and northern Oaxaca, a brief notice may be given of the ^{principal} ~~remarkable~~ ruins of Mitla. According to Charnay these remains are now reduced to three pyramids and six palaces. The best preserved ^{group} ~~structure~~ consists of three buildings surmounting low mounds of earth and stone and forming three sides of a square court. The opposing structures on the east and west are nearly obliterated, but that on the north is well preserved and has furnished the very striking illustrations so widely published. This building has a T-shaped plan and was

entered from the court by three doorways approached by a broad stairway a few steps in height. The entrance is into a ~~great~~ court 36 feet wide and 130 feet in length, along the middle of which is a row of tapering porphyry columns six in number that once supported the roof. The walls are faced outside with well cut stone in large blocks, ~~which are~~ laid to form sunken horizontal panels of varying size, in which by means of stucco a ~~wonderful~~ ^{tasteful} series of geometric decorative patterns have been worked. The only carvings observed are some geometric patterns upon the large stones of the facade over the doorways. The floor is paved with flat stones and the inner surface of the walls is of unhewn stone; both were originally plastered. The roof was probably supported by horizontally placed wooden beams resting midway ^{upon} ~~by~~ the columns. The remainder of this edifice and the ~~remaining~~ ^{other} structures of the group need not be described in detail, as no peculiar or important features have been recorded save a subterranean gallery underneath one of the palaces. The pyramids are reduced to shapeless mounds and it is not known whether or not they originally supported temples or other buildings. According to Zapotec tradition Mitla was a great religious centre, but nothing is really known of its history and people and the affinities of its art are not fully made out.

Oaxaca furnishes a number of less important groups of ruins, as at Monte Alban, ~~and~~ ^{The ~~country~~} Zachila and Tehuantepec, ^{country} is rich in ~~minor~~ relics obtained mostly from tombs. They include earthenware of excellent make and ~~most~~ extraordinary forms, the large vases representing mythical personages ^{loaded with symbols,} ~~being of especial interest.~~

The art remains of the Nahuatl peoples present many close analogies with the ^{antiquities} ~~work~~ of Central American ~~Nations~~, but the exact relations in time, genesis and race, have not been determined. The differences are so pronounced that a long period of separation must be allowed if it is assumed that all were originally of the same stock. There are also ~~some~~ strange analogies with the art of Asia and some ~~that~~ suggesting very strongly ^{cultural relations} ~~limited~~ ~~assimila-~~ ^{with that country} ~~tion~~ or a very remote identity ^{of peoples.}

The state of culture attained by the most advanced of the ^{Mexican} ~~American~~ ^{nations} ~~peoples~~, was that of well advanced barbarism, and if we are to judge by the originality and apparent virility of their art, there is a strong probability that if left alone to work out their destiny they would have passed gradually into the succeeding stages of civilization and enlightenment.



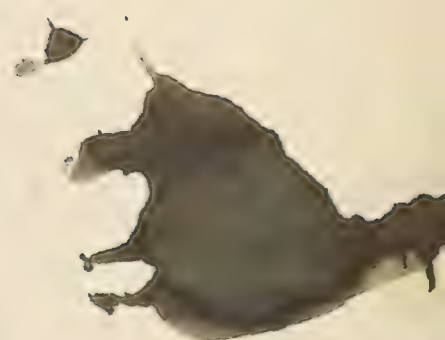
Says Professor W. H. Holmes, Chief Anthropodist of the Smithsonian Institution:

"As we pass to the south (in America) the works of man take forms so diversified and extraordinary that the inquiry is frequently raised whether the Arctic gateway has been the only means of admission to ancient America.

"Diversified and remarkable are the correspondences existing between the architectural and sculptural remains of middle America and those of southeastern Asia. In both regions the chief structures of the ancient cities are pyramids ascended by four steep stairways of stone bordered by serpent balustrades and surmounted by temples.

"The snouted masks of the Maya sculptures have an insinuating way of suggesting the trunk of the elephant, and the upturned jaw of the mythical serpent is equally reminiscent of the treatment of the cobra jaw in the Far East. Temple walls are surmounted by roof-crests and cupolas of pagoda-like design.

"It has often been remarked that the faces of modeled and sculptured figures in southern Mexico have a suggestive Mongolian cast, and



Cuba
Rivers of the World

This is, of course, conjecture well stated. The chances are the sinking of Atlantis, if it ever occurred, occupied thousands of years, and, as to the age of the fossiliferous limestone of Yucatan, and how long it was in forming, we can only surmise; but it is safe to say, a thousand years must be regarded as the lowest unit of time measurement.

Professor Holmes sets the coming of the red pioneers into Yucatan at "a thousand or more years ago." The "more" is a saving clause, for we have no more reason to believe that the existing ruins in Yucatan are the work of people who entered the land a thousand years ago than we have to believe that the mounds in the Mississippi Valley were built by the last comers. It is now settled that long before the first dynasty under Menes, in Egypt, people of comparative culture lived in the valley of the Nile; and it may be inferred that the existing ruins in Mexico are the remains of the architecture of its first settlers. The logical inference is that these ruins indicate the development of a race that has lived continuously in the region where the ruins are found.

Professor Holmes is happy in his suggestion that the easily worked limestone in Yucatan, much of it shattered by the forces of nature, gave the people an easy material on which to exercise their architectural skill and their strong, rude ideas of decoration. It is well worth noting that the existing ruins of greatest interest were ruins at the time of the Spanish Conquest, and that the existing traditions are much

like those that pertained to them in the days of Cortez, plus the adopted speculations and traditions of the conqueror. The Maya race, to-day inhabiting the Peninsula of Yucatan and much of the territory to the south and west, are undoubtedly descendants of the people who welcomed Cortez to Cozumel and who subsequently became his allies in the advance on Mexico. The heroine Malintz was of the Maya race. This race is still brave, sturdy and intelligent. It has its traditions of an Eastern origin, but the facts are all against the tradition, for everything points to an Asiatic origin for the native American, or an American origin for the Asiatic.

The Mayas, during the four hundred years since the Conquest, cannot have advanced, for according to Professor Holmes and Professor Brinton they were but little inferior in culture to the Spaniards under Cortez, and at that time, 1519, they had developed a phonetic system of writing. But whether the existing Mayas are the descendants of the people who built the pyramids and temples now in ruins in Yucatan is not a question of vital interest, save as these ruins would indicate their advance or retrogression. Without doubt there are ignorant peasants in Egypt to-day whose ancestors fought under Sesostris or partook in the wars of Mene's conquest. But the men who built the pyramids and great cities, and dug the great canals and reservoirs up to the Twelfth dynasty, will compare favorably with the Egyptian toiler of to-day who is his descendant. There is, therefore, no good reason for doubting that the present red natives of Yucatan are descended from the people whose ruined architectural works amaze the student of our time.

At the time of the Invasion, the accuracy of the Maya chronological calendar was superior to that of the Spaniards. The same may be said of the Aztecs. So perfect was it that the great Humboldt, in the early part of this century, could not believe that it had a native origin. The language of the Mayas, while harsh to the ear, like our own English, has much the same grammatical construction; in addition, it is as accurate as the German and as flexible as the French. But it is from the standpoint of the archeologist, and not from that of the philologist, that Professor Holmes considers this remarkable people, and we must follow him.

The 70,000 miles of Maya territory are literally dotted with the ruins of the race. "The traveler is seldom out of sight of some mound, pyramid, or other massive structure." As in Egypt, the modern villages and towns of the Maya Peninsula are built largely from material taken from these ruins, and the work of spoliation continues and must soon result in the annihilation of these interesting remains, unless the Mexican Government interferes. Prof. Holmes says: "Nature has vied with man in the work of leveling the noble monuments with the ground. The luxuriant vegetation which envelops the ruins sends a multitude of strong roots deep into the masonry at every vulnerable point; growing rapidly, they act like wedges, separating masses and aiding gravitation and the elements in their never-ceasing efforts at destruction."

The original purposes of these buildings must remain a matter for speculation; but there is no doubt that, as with many of the ruins of other lands, the builders were impelled by the religious impulse, to honor their gods. As a rule, the buildings in Yucatan indicate, by shrine and temple forms, the purpose of their construction; and, it may be added, they are unsuited for human habitations, and could not have been built for defence by a warlike race. Some of the more colossal buildings, distinguished by many windowless rooms, may have



INSCRIBED STELA OR COLUMN.

been cloisters for religious societies. So strong is the resemblance of these to those used by religious orders in the Old World, that one of the most celebrated of the ruins at Uxmal is known as the "Nunnery." Other ruins suggest "gymnasiums" and "ball courts," while there are yet others for whose existence even speculation cannot assign a reason. "Tombs of simple construction are found in various relations with the ruined monuments, occurring not infrequently as vaults or small chambers in the side of pyramids and terraces." But the general method of disposing of the dead at the time of the great builders is, as yet, imperfectly understood. But while these structures may have been monuments to the dead, it is settled that they could not have been mausoleums.

While it is very certain that the domestic structures of the Mayas, in the past, as to-day, were largely of wood, and so subject to quick decay, many of the mighty ruins show, by their varied architecture and additions, that the original designs were changed by successive generations of builders. It is certain that architecture was a well-developed art with these people, and it is reasonable to believe that they worked from carefully prepared drawings, in which even the art details were given. The structures made necessary instruments of precision, for securing accuracy of dimension, line, surface and angle, though some students think the work was done "by rule of thumb."

If the latter were the case, it would indicate an architectural genius in the workers for which there is no parallel in the record of human effort.

While copper chisels have been found in Yucatan, the metal was too rare and too soft to be used for stone-dressing. We must find some cutting article of that fabulously tempered copper before placing faith in its existence. Obsidian or other forms of volcanic stone, brought from the uplands, may have furnished cutting tools.

"Mortar made of lime and sand, and cement-like mixtures of mortar, tempered with gravel, pounded stone, etc., were extensively used, and their durability is remarkable." Wood was extensively used in connection

with many of the great stone buildings, particularly for the lintels.



SCULPTURED SANCTUARY, TEMPLE OF THE TIGERS.

In Yucatan, as in Egypt, where great monoliths were used far from the quarries in which they were cut, the question of transportation is a puzzle, particularly as, in America, there were no large beasts of burden. Still the builders in Yucatan used no such monstrous stones as are found in Peru and the massive ruins along the Mexican plateau; but these countries, so far as we know, labored under the same difficulties. But the size of the stones, apart from the quantity of this material used in the Yucatan structures, is amazing, and the wonder is increased when we realize the carvings on the exposed faces of the stones. These carvings, in the rough at least, were made before the stones were placed in their permanent position.

As in Egypt, and along the Tigris and Euphrates, the sculpturings of the Mayas are conventional; but these art works are not, so far as we can see, intended to be likenesses, but, rather, architectural decorations like the gargoyles and Atlantes used in mediæval and modern architecture. Speaking of these mural or façade designs, Professor Holmes says, with force and eloquence: "Words fail to give a clear notion of the work, for what definite conception is conveyed when it is stated that in a single continuous façade upward of twenty thousand stones were used, not only hewn of varied special

shapes, but each sculptured to represent some individual part of a face, figure, or geometrical design, and all fitted together with such skill as to give the effect of an unbroken whole."

But it was not only in arranging hewn stones into systematic forms that these people excelled, for, after the material was in position, they lavished on its final decoration, in the way of stucco and painting, an amount of careful and artistic work that wins the admiration of the beholder, while he asks, without hope of answer, *Cui bono?* Yet, with all this effort at magnificence, there are certain defects in all this architecture that indicate a state of progress that can hardly be called advanced, from our standpoint. It would be interesting to follow Professor Holmes in his clear description of the material and work of the Mayan builders, but it is our purpose to speak of those interesting ruins as they now are, rather than to speculate as to the methods and purposes of the designers.

Climate may force migratory races to change their dress, food and mode of living; but, strangely enough, the last imported habit to be changed is that of the structure of their dwellings. In tropic Australia, to-day, the English settler builds an English house. The Dutch occupants of some of the East India Islands build on spiles Hollandish houses, though the houses be far above the floods. The Pueblo Indians along the Rio Grande, and down both slopes of the

Sierra Madre, in New Mexico and Arizona, whose towns, from time immemorial, were subject to attack from nomad Apaches and Navajoes, had no exterior windows or doors to their houses. Access was, and in many cases is had, by means of ladders that can be drawn up, and ingress is made through the roof, as through a hatch in the hold of a ship. It might be urged as an argument that the Pueblos and the Mayas had a common origin; that the ruins in Yucatan show that all the stairs are on the outside. It is evident that this was not done for the purpose of defence, as in the case of the Pueblos; but it is not unreasonable to suppose that the exterior stairs is a survival of a form of architecture forced

upon the Mayas before they were pushed or advanced to the South, from the land of the present Pueblo. But, be all this as it may, the stairway, or stairways—for, in the case of pyramids and some other structures, there was a superabundance of them—are the most striking features of the Maya and Central American ruins. These stairways are broad and well-built, the rails being designed from colossal serpents. These serpents, with the tiger and turtle, are the favorite emblems of the builders. The angle of these stairs is about forty-five, with ten inches, or a little more, to the step rise. We reproduce Professor Holmes' superstructure and base designs of some of the more typical buildings, to show this peculiarity of Maya architecture.

Professor Holmes calls attention to a persistent feature in the architecture of these ruins, and that is the two lines of mouldings, "one of which extends around the building nearly mid-way in its height, and the other at the top, associated with the coping stones. The mural space is thus divided into two zones, of nearly equal width, the upper representing the entablature of classic styles. * * * * The high arched gateways or portals, which penetrate some of the buildings, usually giving entrance to the court, extend upward into the upper decorated zone. The flying façade, sometimes added above to give

extra height, repeats in a measure or continues the decorative features of the entablature zone below."

Professor Holmes discourses, with characteristic clearness, on the pillars, arches and ornamentation of this old Maya architecture, and then coming to the keynote of the whole question he says: "The housing of gods and men is a simple thing and requires little more than walls and a roof, but the demands of symbolism and æstheticism make building a complex and wonderful art, adding three-fourths to the labor and cost of construction, and imposing nearly all there is of elaboration and display."

As in Egypt, a striking feature of the Yucatan and the other Mexican ruins is the hieroglyphics that are found on nearly all the walls. These hieroglyphics have attracted the attention of students like Stephens, Charnay, Maudslay, Siler, Thompson and Brinton, and though the prospect is not promising, it is hoped that some Rosetta stone may be found to give a key to these sealed inscriptions.

A glance at the map which we reproduce will show the reader that not only the peninsula of Yucatan, but also the encircling islands abound with these prehistoric ruins, a detailed account of any one of which would give material for a good-sized volume. The most interesting of the northern islands is that of Mugerres, or Women's Island. Here the ruins are numerous, but unimportant as to size. Cortez, whose fleet stopped at this island on the way to Vera Cruz, found a number of small temples with female idols in them, hence the Spanish name "Mugerres."

The islands of Cancun and Cozumel to the south are far more interesting. The latter has never been thoroughly explored, but enough is known of its wonders to make the student eager for more light. The early Spanish records tell of imposing temples crowded with worshippers; but four hundred years, in such a climate, must necessarily be destructive of the works of man. San Miguel was found full of interest to the archeologist, but the party with which Professor Holmes was connected had not, unfortunately for him, time for an extended exploration.

The most interesting place visited was Uxmal, on the mainland, and about fifty-five miles southwest of the seaport of Merida. Thirty-five miles of this journey is made by rail and the rest by *volan coche*. The region about Uxmal is full of miasma, and for this reason the stay of even the most enthusiastic student is necessarily limited. This is much to be regretted, for at this place is found one of the grandest groups of ruins on the continent. The panoramic sketch, reproduced from Prof. Holmes' original drawing, gives at a glance a better idea of these ruins than chapters of mere verbal description.

The ruins at Uxmal cover about three hundred acres, but there is on all sides evidences of more extensive structures. The forests and gigantic vines have invaded the ruins, but enough is visible to indicate their magnificence when the encircling plain was cleared and cultivated. It is believed that Uxmal in its glory was the grandest city in Yucatan, but it has a great rival in Chichen-Itza.

There are five great structures, or groups of structures, at Uxmal that take high rank as specimens of the most advanced Maya architecture. These are known to students as the "Pyramid and Temple of the Magician," the quadrangle called "The Nunnery," the "House of the Turtles," the "House of the Pigeons," and the "Governor's Palace."

The material of these structures is a light, yellowish limestone much resembling marble, and in all there is a seeming uniformity of purpose. Not only are the buildings artistic in design, but "the facings and ornaments are all cut and sculptured with a masterly handling." The stones were set in mortar, but so perfect are the joints that no sign of mortar appears on the surface. The details of the mouldings and sculpture were covered up with white plaster in the most painstaking manner, and finished in colors of varying hues.

These buildings are but one story in height, though the roof crests give the idea of much greater elevation. As a rule, each building is occupied by two lines of compartments, the rooms being vaulted and of good size and height. The structures, save in the case of pyramids, usually inclose a central court, like Moorish houses.

The first figure to attract the attention of the visitor at Uxmal is the grand ruin known to students as "The Temple of the Magician." It stands to the left in Professor Holmes' panoramic drawing, and faces the observer. The steep pyramid supports upon its summit a ruined building, and upon its western face, near the top, is a second structure of remarkable position and appearance. The height of the pile is upward of eighty feet, the length of the base about two hundred and forty feet. A wide stairway, not shown in the drawing, rises from the roadway, at so steep an angle as to make its ascent difficult. The temple on the summit is about seventy feet by twelve, and contains three rooms. The arched roof has fallen in, and, as is always the case where wooden lintels were used, the doors have caved in. The most notable feature of the structure is a temple built against the north side of the pyramid. The façade of this temple is about twenty-two feet square and is a most ornate and forceful piece of stone carving. Here are found the characteristic snout masks, one of which, of colossal size, occupies the principal doorway. It is twelve feet square, and filled with striking details: the most remarkable of these is a life-size figure standing on the snout and resting on the forehead, which is nearly demolished; others are a pair of tigers, with averted heads, supporting the pedestal of the statue. Masks of this character decorate the cornices, giving them a most grotesque appearance.

"The Nunnery" group is among the finest specimens of Maya architecture, and has already been described by Charnay and others. It is composed of four extensive, rectangular structures, standing on a broad terrace, the ornate fronts facing inward on the court. At the first glance these massive structures look like fortifications, but the wide spaces at the corners preclude the thought of such a purpose. One feature that distinguishes the Nunnery from the other structures, is the many rooms that indicate that they were intended for communal purposes, possibly residences for priests or other sacred bodies.

The base of the terrace, on which the quadrangle rests, is about three hundred feet on the side. The sides facing the court are thought to be the most notable in Yucatan, particularly to the artist or the lover of art. Here again the snout mask is prominent in the decorations, but it is always the centre of more elaborate and delicate ornamentation. Next to the mask the serpent seems to be the important motive, though sculptured lattice work is to be found on every hand, and human figures, sometimes of colossal size, are frequent. It is worthy of note that the north building in the group is built over the ruins of one much older, and the examination of which would, no doubt, be profitable.

"The Gymnasium" is a thorough ruin, only two massive walls remaining; these are south of the Nunnery in the panorama. The remnants of sculptured serpents and other works of art indicate that this was a building of importance. The length of this building is

ninety feet, the height twenty, and the walls are twenty feet in thickness. This place is also called "the ball ground," but the modern name is of no importance.

Beyond the walls of the Gymnasium, as seen in the panorama, rises the broad terrace of the so-called "Governor's Palace." This is one of the most notable buildings of its class on the continent. It



OVER-DOOR ORNAMENTS, EAST FACADE, GOVERNOR'S PALACE.

is in the form of a trapezoid three hundred and twenty feet long, forty feet wide, and about twenty-six feet high. The façade of the front wall is of rare beauty. The sculptured zone, about ten feet in width, extends for seven hundred and twenty feet, the space being literally crowded with unique designs. Twenty thousand stones, all sculptured before being set, and each a part of a perfectly pictured design, were required for this amazing work. An idea of this decoration may be had from our reproduction of the ornamentation over a door in the east front of the Governor's Palace. This picture is reproduced from one of Charnay's photographs (a cast of a part of it is in the American Museum of Natural History, and appears in Professor Holmes' report). It is not possible to enter into the details of this superb ruin. Artists and architects, archeologists and ethnologists, are alike amazed and delighted with the superb work, which, even in its ruined state, appeals to the imagination, as does the sand-defaced features of the mighty Sphinx in the Nile Valley.

"The House of Turtles," though inferior in dimensions, is still a handsome and representative structure. It is seen in the panorama to the right of the palace, and on a projection of the second terrace to the northwest. It is a rectangular building, unconnected with the others, and is about one hundred feet long by thirty in width. Its walls are covered with the characteristic ornaments.

"The House of the Pigeons," so called from the dove-cot appearance of the wall crests, is seen to the right of the House of the Turtles. Like the others the purpose of this fine building is, and it is feared must forever remain, an unsolved riddle. The walls have the usual decorations, but the door-like opening on the crests are a mystery. Professor Holmes shrewdly surmises that these yoke-like combs supported statuary, and were further intended for ornament. The comb of this building is, according to Stephens, one hundred and eighty by one hundred and fifty feet. Only one wall is visible in the panorama.

Beyond the gabled ruin is the building known as the "South Quadrangle." It covers an area of two hundred by one hundred and twenty-five feet, with a fine temple-crowned pyramid on the south side.

The crowning building at Uxmal is "The Great Pyramid." It is three hundred by two hundred, and is over seventy feet in height. About it the ground is littered with ruins, so that an examination is difficult. From these ruins many complete columns and specimens of carving have been carried away to northern museums.

Of nearly equal interest with Uxmal is Chichen-Itza, "the mouths of the wells of Itza," in the same wonderland of Central Yucatan. There is no single ruin in this most interesting group—a panorama of which we give—that compares with the Palace or the great Nunnery quadrangle of the former place, yet Chichen-Itza excels Uxmal in the extent and variety of its remains. Mr. E. H. Thompson, still a young man and entirely familiar with every point of interest in the peninsula, is so impressed with the importance of Chichen as a point for the study of old Maya civilization that he has decided to give all his time to the examination of this place, till he has exhausted it, or is himself exhausted.

Like Uxmal, Chichen is situated in the midst of a level forest. The place—it is of the late pliocene formation—would be of interest to the geologist were it not for its greater archeological interest.

The principal groups of ruins are included within an area of about one square mile. The buildings vary much in character, no matter their original unity of purpose, though it is safe to infer that this was the site of a Maya city of importance. Here there are ten or twelve pyramid temples in every state of ruin. Among the striking structures is one known as the "Round Tower," because of its form and its re-

semblance to similar buildings still numerous in Ireland, and the origin of which has so long been a puzzle to European archeologists.

The material at Chichen is the soft limestone, so abundant in the neighborhood, and the well-made mortar is as fully and skilfully used here as at other points of interest. The weak features of these and similar buildings were the wooden lintels, which, decaying first, have caused the doors to fall in. This is the more surprising, for the Mayas knew the arch in its older forms, and frequently used stone for lintels.

The skill of the sculptors at Chichen invites our admiration. The designs were drawn and the blocks for the most elaborate work were cut before being placed in position. Yet no mistake is evident. The parts, when placed in position, made a harmonious whole. Snake-like columns, balustrades, Atlantian figures, and graphic relief sculptures were all made up of stones cut in advance, and individually small, as compared with the whole design. An outline drawing of one of the sculptures, a grand face, with its framework of hieroglyphic design, is given herewith; but, good though this is, it can only suggest the massiveness and perfection of the whole work.

In the foreground of the panorama is the group of the Nunnery, or Palace, A, with its annexes, B and C. To the right, D, is Akab-tzib. The Round Tower is marked E. Nearby is the Red House, F, and beyond the Palace the Ruined Temple, G. Near the centre is the

Chichen-Itza, Yucatan, 1897 p. 6

In 1893 Mr. Holmes became associated with the geological department of the Chicago University, where he gave one course of lectures on *Anthropic Geology*, and another on *Graphic Methods Applied to Geologic Illustration*. In 1894 he was appointed Curator of anthropology in the Field Columbian Museum, Chicago, where he served three and a half years classifying, installing, and describing the rich collection of that institution. The winter of 1894 was spent in Mexico, studying its ancient monuments. His report on this work has been published in two parts: I. *Monuments of Yucatan*, and II. *Monuments of Chiapas, Oaxaca, and the Valley*

of Mexico. In July, 1897, Professor Holmes was again called to Washington, where on October 1 he took the position of head Curator of Anthropology in the U. S. National Museum.

From this brief sketch it will be seen that Professor Holmes' life has been a busy and undoubtedly a happy one, for he early found that his life-calling and its pursuits brought him happiness. He has published fifty-four papers, many of them voluminous, and all of them crammed with valuable additions to those sciences which he has studied so carefully and continuously.

Professor Holmes is a graceful speaker, and he has mastered a style that is a surprise and a delight to the purely literary man. His illustrations made, it is said, with marvelous rapidity, are the very best we have seen. They are not simply superior as works of art, but they illustrate his text in a way that makes his reports clear to the veriest novice.

Professor Holmes is in the midst of his great work, and, as it proceeds, it is our hope that the readers of MONUMENTAL RECORDS will know more and more of this scholarly and gifted American.

ALFRED R. CALHOUN.



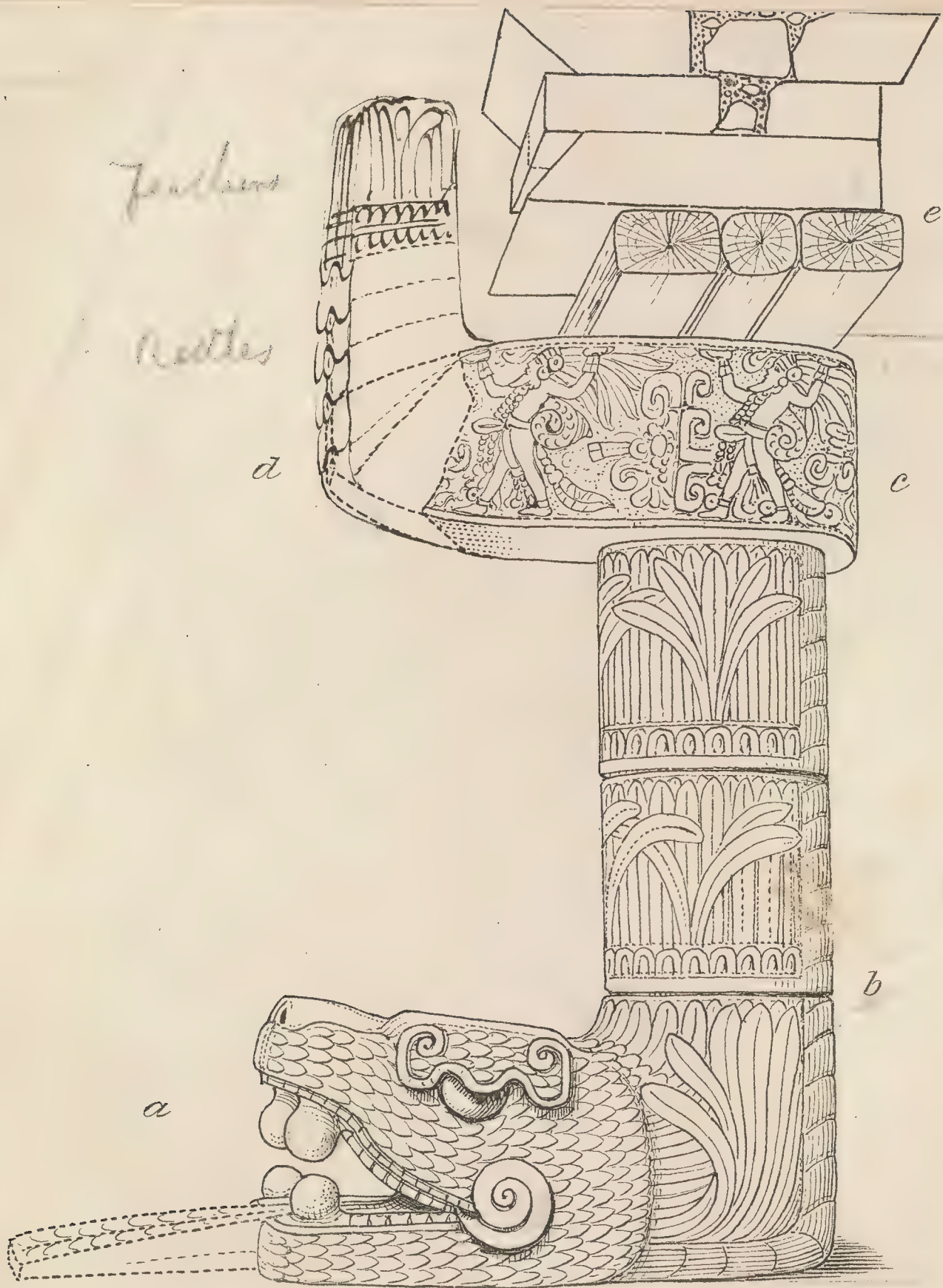
Model in plaster by C. Holmes
One of the superb columns. 1916.

Restoration in plaster of one
of the serpent columns from the
great temple of El-Amarna
a second one was made and
both are now placed in the
lobby of the natural history

W. H. Holmes
my portrait in
clouds

Survey of ruins in 1925
Columns erected in Museum
about 1910 " 12





The Wind-Serpent column

5/11/15

write to Mr. Hodge himself by next post as I am collecting the necessary information. The Bulletin is certainly a most convenient form.

With great regret I shall have to be absent as regards the XIX Int. Cong. of Amer. I dare not face a winter in the Northern Hemisphere. Besides my presence here is imperative in this year of economic crisis. The whole world is in a mess and Argentina has participated to the full in it. Of course, many things may happen before December; but the bad season for me is a certainty and it would grieve me badly to leave this world before Hunt and I accomplish our feat of publishing complete his trilogy of languages: *Vejez*, *Choroti* and *Lengua-ana-cay*, mostly his work, but some of it, as it be paraminia mine.

Do write to me again soon. Ever,

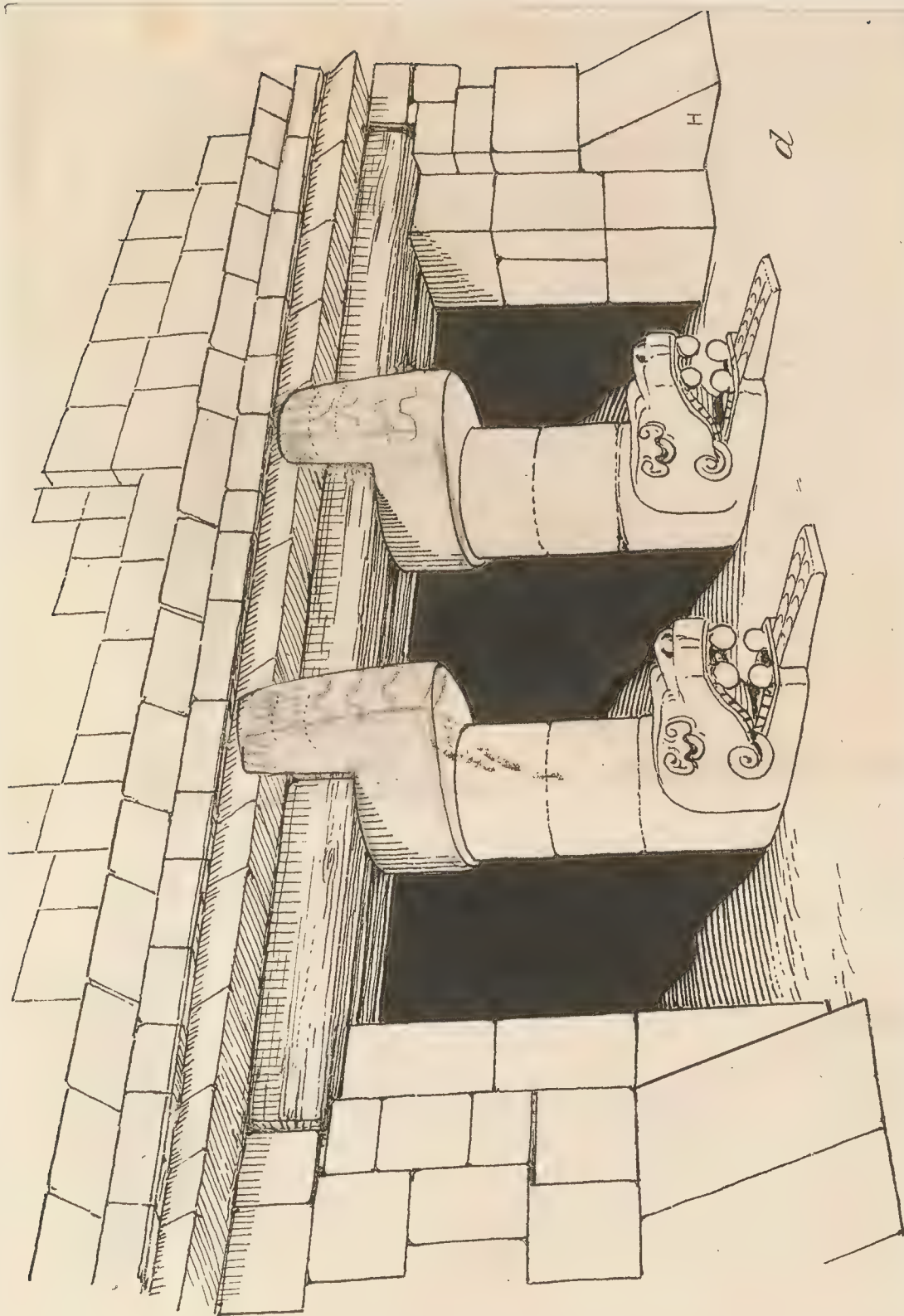
Yours sincerely,

/s/ Saml. A. Lafone Quevedo.

Murderer talk a little
on the occasion of my language
on going to Chicago



Setting up the largest column
in the Great Hall Museum



RANDOM RECORDS OF A LIFETIME
DEVOTED TO SCIENCE AND ART, 1846-1931

BY W. H. HOLMES

LIST OF VOLUMES

- Volume I. Brief Biography, Positions Held, Loubat Prizes, Medals, etc., Societies and Clubs, Bibliography.
- II. Explorations, Episodes and Adventures, Expositions and Congresses.
- III. Part I. Yellowstone Explorations, 1872.
Part II. Yellowstone Explorations, 1878.
- IV. Part I. Colorado Explorations, 1873, 74, 75, 76 & 87.
Part II. The Cliff Dwellers.
- V. Europe 1879-80; Grand Canyon of the Colorado; Explorations in Mexico with Jackson and the Chains; Colorado with Powell and Langley, 1887.
- VI. Aboriginal Boulder Quarries, Piney Branch, D. C., Soapstone Quarries, Paint Mines, and Lay Figure Groups.
- VII. The Chicago Venture, University, Exposition, Field Museum, Yucatan, Return to Washington, 1892-97.
- VIII. Cuba with Powell; Jamaica with Langley; Mexico with Gilbert and Dutton; California with McGee; Physical Anthropology, Hrdlicka, Current Work 1900.
- IX. Chief Period, Bureau of American Ethnology, 1902-1910; Visits to Stuttgart and Chile 1908.
- X. Transfer to the Museum June 10, 1910, the Guatemalian Trip, Powell Monuments, Seventieth Birthday Celebration, 1920.
- XI. Director of the National Gallery of Art, 1920-1931.

- XII. The Freer Gallery of Art
- XIII. Portraits, Smithsonian Institution.
- XIV. Portraits, Bureau of American Ethnology. National Gallery of Art, and Miscellaneous.
- XV. Masterpieces of Aboriginal American Art.
- XVI. Various Articles on Art and the Art Gallery.
- XVII. Personal.
- XVIII. Personal.
- XIX. Personal.
- XX. Personal. Water Color Sketches.





PLATE I. ALTAR-PIECE, TEMPLE OF THE BEAU RELIEF, A MASTERPIECE OF STUCCO WORK, PALENQUE, CHIAPAS. (WALDECK.) SEE PAGE 5.

(18) IX
CHICAGO
Chapter IX YUCATAN
Transfer to Chicago

During the winter of 1894-1895, an event of exceptional importance in Holmes' career occurred. This was an exploring expedition to Yucatan with Mr. Allison V. Armour, of Chicago, in his good yacht *Ituna*. The chief result of this trip was the publication by the Field Museum of a volume of 338 pages, on the ancient ruins of Yucatan and Central America, with numerous illustrations of the remarkable ruined buildings and works of sculpture and with maps, ground plans of buildings and panoramic views of the cities.*

In 1897, he returned to Washington to become Head Curator of the Department of Anthropology in the National Museum, this department including, besides ethnology and archeology, the collections of technology, history and art. In 1900, he spent the months of February and March with Major Powell, studying the antiquities of the Island of Cuba, and later joined Secretary S. P. Langley, in Jamaica, assisting in the study of the flight of the turkey vulture, the object being to learn something of the secrets of flight and their possible application to the development of the flying ma-

**Archæological Studies Among the Ancient Ruins of Mexico*, in two parts, by W. H. Holmes.

chine. Later, a third visit was made to Mexico during which interesting studies, scientific and artistic, were made.

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